

THE EDUCATIONAL IDEAS

OF

PESTALOZZI AND FRÖBEL.

BY F. H. HAYWARD, D.LIT., M.A.

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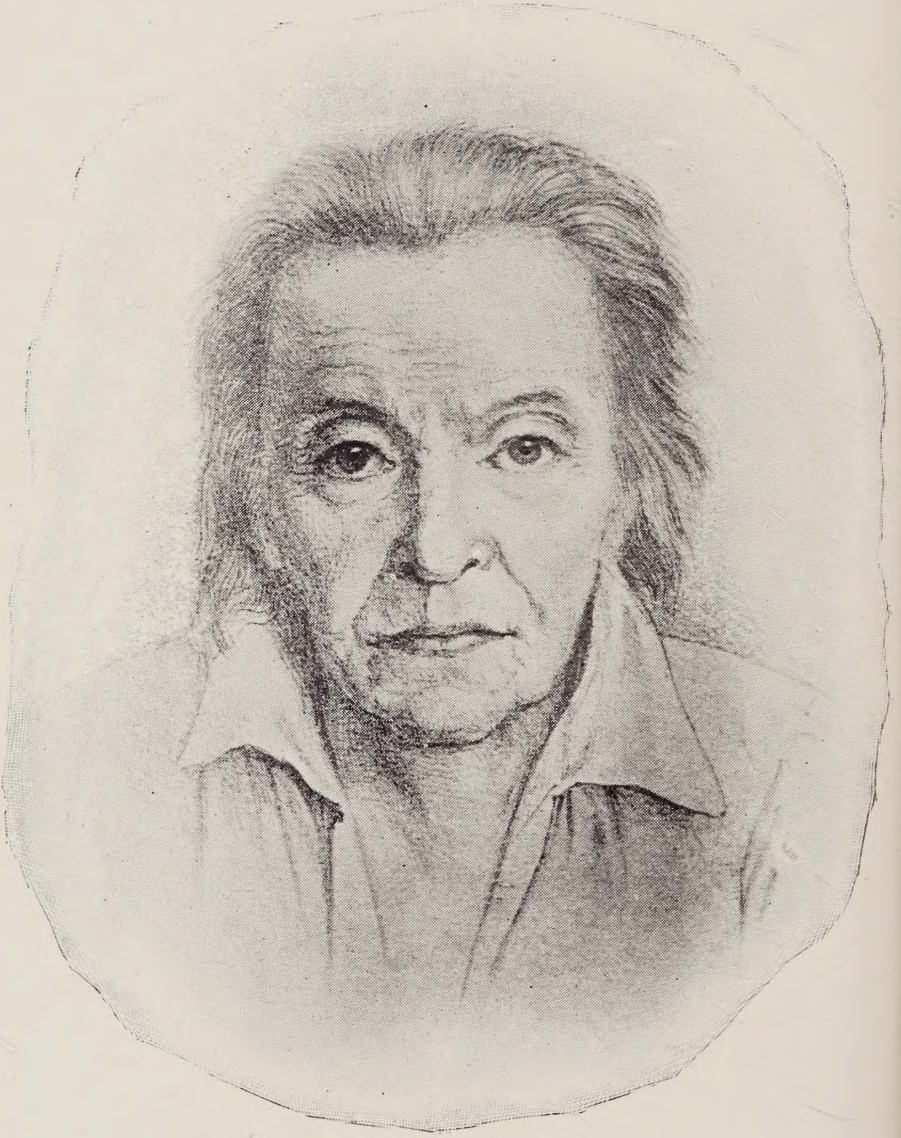


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HEINRICH PESTALOZZI.

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THE EDUCATIONAL IDEAS
OF
PESTALOZZI AND FRÖBEL.

BY

F. H. HAYWARD,

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PRINCIPAL OF THE PUPIL TEACHERS' CENTRE FOR THE TORQUAY AND DARTMOUTH
DISTRICT. AUTHOR OF "THE ETHICAL PHILOSOPHY OF SIDGWICK,"
"THE STUDENT'S HERBART," ETC.

"Know, man hath all which Nature hath, but more,
And in that *more* lie all his hopes of good."
—*Matthew Arnold.*

London :

RALPH HOLLAND & CO.,

TEMPLE CHAMBERS, E.C.

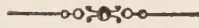
1904.

"We are influenced in our deeper, more temperamental dispositions by the life-habits and codes of conduct of we know not what unnumbered hosts of ancestors, which, like a cloud of witnesses, are present throughout our lives, and our souls are echo-chambers in which their whispers reverberate. . . . Our own soul is full in all its parts of faint hints, rudimentary spectres flitting for an instant at some moment of our individual life and then gone for ever; dim and scarcely audible murmurs of a great and prolonged life, hot, intense, richly dight with incident and detail that is no more; a slight automatism, perhaps, being the sole relic of the most central experiences of many generations, a fleeting fancy all that survives of ages of toil and blood, a feeling that only peeps out for a moment in infancy, the far-off dying echo of what was once the voice of a great multitude. . . . The soma is resonant in every cell, fibre and reflex arc with reminiscences of extinct generations."

—*Adolescence* (Dr. Stanley Hall).

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AUTHOR'S NOTE.

THE author will be glad to communicate with the readers of this book—especially with those who are using it in preparation for the Certificate Examination—if they wish for further information on any of the points raised.

PUPIL TEACHERS' CENTRE,

TORQUAY, Oct. 1904.

N.B.—The references in brackets are as follows :—

G.=De Guimps' *Life of Pestalozzi*.

P.=Pinloche's *Pestalozzi*.

C.=Cooke's translation of *How Gertrude Teaches Her Children*.

B.=Bowen's *Fröbel*.

S.F. I.=Herford's *Students' Fröbel*, Part I.

S.F. II.=Herford's *Students' Fröbel*, Part II.

The Educational Ideas of Pestalozzi and Froebel.



INTRODUCTION.

I AM becoming more and more convinced that an author has no right to preface his work by an apology. If he thinks he could do better than he has done, he should keep his belief—or his work—to himself.

But education is a peculiar subject. Everyone here has an opinion, yet the wisest of our educators are the most convinced that nearly all the opinions expressed—their own included—are of extremely limited value, possessing, perhaps, a little relative truth, but none of an absolute and final kind. One who has the best of opportunities of knowing and is himself a constructive worker, frankly avows that “there are scarcely three teachers of mark in England who work on the same lines . . . ; our study of education is in its infancy.”* Of real authority there is so little that the most eminent educationalist in Germany, and, perhaps, in the world, has just been declared to be an unknown man in England; “only one leading scholastic bookseller in Manchester had previously heard of his name, did not keep his books in stock, and had to refer to London catalogues to ascertain the titles of his works, and which of them had been translated into English.”† Mr.

* *School*, July, 1904.

† *University Correspondent*, July 1, 1904.

H. G. Wells' words of a few years ago still hold good in large measure: "there is nothing having any authority higher than individual opinion, nothing threshed out and permanently established. . . . From one lecturer in education comes one assertion, and from another another."* Meanwhile we go merrily on, appointing committees, officials, and teachers, and flattering ourselves with a belief that we are progressing—as we are, but in externals only.

One way, and perhaps only one, can lead to anything "threshed out and permanently established." We must select the three or five or eight or twelve most eminent of modern educators, and discover upon what matters—if upon any—they are approximately agreed. Sooner or later I intend, if energy and inclination last, and if opportunities allow, to undertake that task. There is, I am convinced, a very large measure of agreement, such as I have already proved† to exist between writers of opposite psychological schools like Herbart and Dr. Laurie; and fresh evidence of the same kind is daily coming forward for those who have eyes to appreciate it. If ever such a work appears, it will appear without prefatory apologies. Though it were the dullest book in existence, it would deserve a welcome from distracted teachers, for, as I have urged before, only by possessing ideal and scientific views on education—a pedagogical "court of appeal," in fact—will teachers ever be anything but helpless instruments in the hands of others, protest how strongly they may.

Meanwhile, having been asked to put into printed form my thoughts on Pestalozzi and Fröbel for those teachers who take their Certificate Examination in 1906, I should feel strongly inclined to apologise for my performance—but for one consideration. That consideration may be expressed in the words of Mr. Pellat's recent book: "nothing at all of a critical nature, so far as I can discover, has been written in this country of

* *Educational Times*, February, 1895.

† *School*, April and May, 1904.

either Pestalozzi or Fröbel.”* Now the present work is, in a measure, critical as well as sympathetic; and in the general absence of criticism of any kind—such criticism as will pave the way to an ultimate synthesis—it may possibly help to clear away a little educational fog. For the strong attitude taken up with regard to Rousseau—for the protest against those dogmas of his which bedraggle the best work of Pestalozzi and Fröbel, and from which only a few modern educators such as Herbart and Dr. Laurie have been able to keep themselves free—I offer no apology whatever. I rejoice to have the opportunity of protesting against the pernicious and extraordinary influence of this thief, parasite, rogue, and voluptuary of Geneva. At every educational council board stands the shadowy figure of Rousseau, its presence boding ill for the future of education. The favourite of Madame de Warens and Thérèse Levasseur is the leader from whom, all unknowing, the respectable school-manager or committeeman of modern days borrows almost all the educational philosophy he possesses. Progress generally knows its friends; but educational progress fails to recognise in Rousseau its bitterest and deadliest enemy, an enemy that, behind a mask and garb of seeming truthfulness and sagacity, hides the swine snout and the satyr hoof. But the most grievous of all the wounds that Rousseau inflicted on education was the way in which he prevented two inspired men like Pestalozzi and Fröbel from attaining to perfect clearness of view. Stanz, Burgdorf, Yverdun, and Keilhau, like the modern committee-room, seem to have been haunted by the spectre of this man. It is necessary to say, once for all, that despite the sparkle of many of Rousseau’s suggestions, his influence is essentially pernicious and reactionary; “he took no step forward in education; what is true in his scheme is due mostly to Locke; what is his own is false and misleading”; his notions about education are “absurd.”†

* *Public Schools and Public Opinion*, p. 43.

† Davidson. *History of Education*, p.p. 218-22.

When he and his far nobler followers, Pestalozzi and Fröbel, denounce books and bookishness, we must frankly recognise the fact that they are (sometimes at least) talking nonsense. Obviously, too, they are inconsistent, for Rousseau's name is essentially that of a bookwriter; and much of Pestalozzi's best work was of the same kind; nay, as a teacher, he did more for the teaching of reading than any other man.* The "bookishness" that followed the Renaissance took wrong forms—that we may admit—and the protests of these men were therefore not wholly illegitimate; but it is pernicious and reactionary to talk—as Rousseau and Pestalozzi talked, and as many a modern "educationalist" talks†—of making schools less "bookish." Mr. Wells and every really sagacious educationalist know that they are not half "bookish" enough, though they may be "bookish" in wrong ways.

Other points have become increasingly clear to me in the course of putting together my notes—the essential originality of Pestalozzi as a worker, and the fidelity of Fröbel to his master. Apart from their Rousseau illusions, the soundness and sureness of their pedagogical tact betokened genius—nothing less. We are prone to smile at Pestalozzi, and to accept his confessions of incompetence readily; but he was, after all, a miracle-worker in practice, and an inspired seer in educational method. It is because Pestalozzi's thoughts have been circulating in our midst for a century that we question his originality, but we have only to read his and others' accounts of the schools of his time to realise how revolutionary were his methods. He himself tells us that the principle of *Anschauung* was wholly and entirely ignored by the teachers of the time. Mr. Wells speaks of him as "a man in a fog," as "a great failure," though in the latter respect standing in a noble succession, for "the greatest men have

* "Bookbinding," too, was one of the manual arts encouraged both by Pestalozzi and Fröbel.

† Mr. Gorst's *Curse of Education* is merely the *Emile* minus its brilliance and originality.

been failures"; and "out of his fall there arose a great harvest of educational enlightenment."* Now Mr. Wells is perhaps the most original man of the present day, but I venture to say that—despite all the fog that sometimes beclouded Pestalozzi's brain, and the fallaciousness of some of the philosophy which he professed—Pestalozzi was more essentially original than the brilliant author of *Anticipations* and *The Time Machine*; and that *How Gertrude Teaches Her Children* is a more imperishable work than these. Most students of Pestalozzi use De Guimps' book—so admirable and moving as a biography; they thus gain an impression of Pestalozzi's weaker side. But by studying Pestalozzi's own words, they would gain a better knowledge of his real sanity and greatness. When grappling with the problems of educational method, he is as calm and scientific, one might almost say as remorseless, as any materialist can desire, or—as Mr. Wells himself. The poor incapable noodle of our writer's imagination is seen to be a clear-headed thinker whenever he is working with his own categories. And the audacity with which he threw himself into the new methods (not, as Rousseau, contenting himself with writing an audacious book) bespoke that faith which removes mountains. There is not a school-master in England who would not shake in his shoes at the thought of making such a break with the past as Pestalozzi initiated. Tobler, his helper, was struck by his complete disregard of all former school routine. (C. 58).

Then as to Fröbel, the "prince of educators," as Mr. Wells calls him, the inventor of "clear theory and wise methods." He strikes me as marvellously like Pestalozzi in methods of management, in character, and in thought; each is foggy over the "nature" question, though Fröbel is the foggier; each is great when the practical problems of education have to be faced. They agree essentially on all important questions, though Fröbel worked out the problem of development more

* *Educational Times*, September, 1894.

exactly than Pestalozzi, and studied the very young child more thoughtfully. I have therefore considered it best to deal with them, as a rule, simultaneously, rather than to consider Pestalozzi completely, and then to pass on to Fröbel. I cannot agree with Mr. Wells when he draws so sharp a contrast between the two men. Though Fröbel was fundamentally right in almost all his concrete suggestions, I contend that his notions of "nature" (*external* nature, not *child* nature) were as hopelessly untenable as the similar and contemporary views of Wordsworth. Mr. Wells is quite capable of attacking "the cant of nature's trustworthiness," in another connection,* and yet he does not appear to see that Fröbel's pantheism landed him in such a perfect quagmire of "nature" cant as to justify a well-known writer in questioning sometimes whether, in studying Fröbel, "we have to do with a well-balanced mind, or whether an exuberant imagination has not caused the author to lose the consciousness of reality."† The man who regarded the loss of his architect's testimonials as a sign that providence did not intend him for an architect was, one would imagine, far less likely than Herbart to win the favour of Mr. H. G. Wells.

The author of *The Time Machine* has, of course, his own notions. Education, according to him, should aid in the mighty struggle for existence that goes on throughout the sentient universe; should aid in the evolution of efficient types. This is the new form of "nature" worship to which, for a few generations, we may perhaps devote ourselves—until we learn that it, like Fröbel's, is mere fetichism, a deification of the smaller by the greater. Mr. Meredith's view seems largely identical with this: "Nature goes on her way unfolding, improving, always pushing us higher." This is the new Fröbelianism; "Nature" is no longer lovingly and gushingly

* *Mankind in the Making*, p. 77. Herbart was never carried away by this Rousseau nonsense.

† Compayre. *History of Pedagogy*, Tr., p. 450.

sentimental—as she was to Fröbel and Wordsworth—but she is astonishingly far-seeing and efficient. For my part I reject all this idolatry, and can never feel in perfect sympathy with any educators that profess it.

I have foreshadowed (above) a synthesis of educational thought, the discovery and exposition of a mass of educational agreement among the master minds. I believe that by combining all that is good in Fröbel with all that is good in Herbart, we shall obtain a solid mass of pedagogic truth which, except on minor points, will remain of authority for centuries. I do not include Rousseau for reasons already given; though he has been the greatest of all powers in education, and on many matters was highly stimulating and suggestive, he was essentially wrong on the main point. Nor is there need to mention Pestalozzi, for nearly all that is practically good in him can be found in Fröbel, and much besides; moreover, I think we have assimilated most of his teaching, though, owing to examination and other exigencies, we have frequently to set it at nought. Fröbel and Herbart are probably the two men who will dominate sound education for the next three hundred years; the sooner, therefore, that we succeed in co-ordinating their work, the sooner we shall be on the highroad of educational progress. At present England ignores Herbart, and Germany Fröbel;* only in America is the process of synthesis taking place in a promising manner. In this country the ignorance of what Herbart really taught is appalling, even among professional and professorial educationalists;† and sound criticism is even more unattainable than in the cases of Pestalozzi and Fröbel.

* The Germans frankly say “Fröbel ist kein Pädagog” (Fröbel is no educationalist), and in several of the best-known German manuals for teachers I do not find his name mentioned, even in connection with manual training.

† See my *Critics of Herbartianism*, p. 209, and contributions to *School*, May and June, 1904. The non-recognition of the Herbartian principle that crude apperception material may grow into an apperception organ is the chief weakness of reformers like Professor Armstrong, and is at the root of their protests against “mere knowledge.”

I do not know whether this little book will contain much "sound" criticism; but criticism it certainly will contain—criticism that is intended to pave the way to the ultimate synthesis above suggested. Unfortunately I cannot deal, except almost incidentally, with Herbart, though I have in one section shown his superiority—so far as clearness of view is concerned—to the other two men. But when the synthesis is effected, we shall hear such doctrines as the following no longer put forward as educational truisms, instead of merely the half-truths, closely bordering on dangerous fallacies, which they are:

Don't teach much, teach a little thoroughly.

Make children think for themselves; don't stuff their heads with knowledge.

Training the mind is more important than instruction.

Draw out the faculties; don't cram with book-knowledge.*

These appear to be unusually popular warcries at the present moment, and are as certain to be rolled out at prize distributions and school openings, as talk about "enthusiasm" is certain to appear when an Herbartian book is under review. But there is not one of these four which, *taken by itself*, does not contain as much error as truth;* and, in point of fact, few teachers ever dream of attending to them. They stand for mere half theories, every whit as pernicious as an absence of theory, and I am not surprised that teachers, while offering abundant lip worship, steadily refuse to do more than this. Teachers will never be fully convinced that there is value in

* As an antidote to the first see Thring's *Theory and Practice of Teaching*, p. 189 (Thring himself, by the way, invented fallacies by the score, though he generally provided the antidotes); for the second see the story told of Mrs. Shelley in Arnold's *Essays in Criticism* (second series); "'Teach him to think for himself?' For God's sake teach him to think like other people;" for the third see Herbart's dictum, "I have no conception of Education apart from Instruction"; the fourth is merely a summary of rabid Rousseauism and, like the second sounds strange at a time when a "general information" paper is set at sundry examinations to remedy deficiencies in "book knowledge." It is astonishing how enslaved many even well-read educationalists still are to Rousseau; Mr. Courthope Bowen apparently quotes Wordsworth's "One impulse from a vernal wood," etc., as if it were not onesided and almost nonsensical. See his excellent Fröbel, p. 71.

“theory” at all until these half theories are recognised for what they are, and are finally co-ordinated and synthesised. Until then, the teacher’s life must remain more or less “grey”* and uninteresting, a pursuit of conflicting aims, a struggle to obey a whole gamut of competing commands. But once such a synthesis is effected, educational work will begin to appear in its true light—the greatest, most significant, most all-penetrating of tasks; the work that will call the very best men into its service, and reward them with the highest of delights.

These dreams must be taken for what they are worth. I know my own limitations sufficiently well to be aware that many a schoolmaster who never has such visions may be more devoted to his calling and an abler man in it than myself. But even the dabbler in “theory” has a place in the body politic, and if he can help to effect, however tentatively, a synthesis of educational thought on essential questions, he is helping to remove some of the distractions which bring “theory” into disrepute, and cause the efforts of teachers to slacken and their faith to fail. I believe that this little book will help the cause of clear-thinking, and thus pave the way to the greater task foreshadowed. If I am wrong, I hope educational critics will point out my errors, and thus win my unaffected gratitude.

One or two final introductory words. It is sometimes supposed that Herbart and Fröbel worked on opposite educational lines. Philosophically they were certainly poles asunder—Herbart, a “mechanical presentationalist,” Fröbel a mystical pantheist. Critics, perhaps in default of possessing pedagogic acumen, have been merciless in their attacks upon these two metaphysical positions. But the encouraging, nay, the sublimely significant fact is that Herbart and Fröbel, *when face to face with educational problems, seem never to contradict each other*. They use language of a fundamentally opposite sound

* Mr. H. G. Wells’ word, *Love and Mr. Lewisham*, p. 10.

when they begin to philosophise, and yet their proposals, when brought down to the concrete, either coincide with or supplement each other. Fröbel is strong on the points that Herbart passed over but briefly, while Herbart's clear formulæ and doctrines—so utterly opposed to the Fröbelian mysticism—seem precisely adapted to remedy the deficiencies of the latter. A few words of the *Allgemeine Pädagogik* are worth tons of Fröbel's pantheism: a few sentences of the *Menschen-erziehung* are worth bushels of Herbart's monads.

I proceed to my task. Would that the opportunities at my disposal and the limits of this book allowed me to write a treatise fully worthy of the subject. It is quite possible that points open to dispute, especially in the treatment of Fröbel, may be discovered, for to work with very young children has never been my lot, and I can only judge of the kindergarten in a somewhat academic way. But, after all, the questions at issue relate to the "ideas" rather than the minute proposals of Pestalozzi and Fröbel. Moreover I have avoided giving expression except in the guilty words of the preceding page, to that "exalted mood" of mine which has (naturally) proved so offensive to the *Educational Times* in its drowsier moments.

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I wish to thank Mr. G. Belford, Director of the Vivian Institute, Torquay; Mr. E. E. Elt, B.Sc., and other friends, for assistance.

I may add that I shall be glad to answer questions from Certificate candidates, relative to the subject-matter of the book.

F. H. HAYWARD.

PUPIL TEACHERS' CENTRE,
Torquay, October, 1904.

I.

LIFE OF PESTALOZZI.*

HEINRICH PESTALOZZI, to whom education probably, and popular education certainly, owes more directly than to any other man, was born at Zurich, Switzerland, in the year 1746. Brought up without the guidance of a father, he early showed signs of that absence of practical business capacity which did so much to undermine the success of his later undertakings. He received the usual school education of the time and, what was more important, came under the influence of Rousseau's *Emile*, a book which not only opened his eyes to the problem of education, but filled his mind with that vague admiration of "nature" which appears so often in his later writings. This admiration appears likewise in Pestalozzi's first serious enterprise—that of farming, an enterprise which failed disastrously, and was ultimately merged in a noble philanthropic scheme for gathering together poor children, and teaching them the "3 R's" and a handicraft. Physical exercises, games, and farm work were also undertaken. But the scheme failed (1780) and the "Neuhof" institute was closed; it was the germ of the modern "industrial school."

He was now advised to turn his attention to writing, as a means of disseminating his philanthropical and educational ideas; the latter were still partly borrowed from Rousseau. His most popular work was *Leonard and Gertrude* (1781-3), the

* This life is of extraordinary interest, but little more than a bare outline can here be given. Every teacher should read Guimp's *Life of Pestalozzi*, translated by Russel (Sonnenschein); or, failing that, the small *Students' Pestalozzi* by Russel (Sonnenschein, 1s. 6d.); Pinloche's *Pestalozzi* (Heinemann) is also a good work, more systematic though less vivid than Russel's.

influence of which extended more or less over the whole of Europe. In 1793 he met Fichte, whose subsequent *Discourses to the German Nation* (1808) were largely inspired by Pestalozzi's ideas and, in their turn, moulded the education of Germany. In 1797 Pestalozzi published a work entitled *My Investigations into the Course of Nature in the Development of the Human Race*, but it attracted little notice ; Europe had other things to attend to.

In 1799 Pestalozzi took charge of an orphanage and institute hurriedly formed at Stanz, a little town that had been well-nigh ruined in the wars of the time. Single-handed, and fighting against immense difficulties, sectarian and other, he here performed what is perhaps the most interesting experiment in the annals of pedagogy. Details cannot be given ; they will be found in De Guimps' or any life of Pestalozzi, but the experiment itself established Pestalozzi's fame as a man who, despite frequent absentmindedness and constant eccentricity, possessed a marvellous power over children. "One can hardly believe one's eyes," said an observer, "when one sees what he has obtained in so short a time." Perhaps the most marvellous fact of all was that he was already on the confines of old age when he began his brief year's work at Stanz.

Then followed a period as teacher in Burgdorf, where the idea of discovering what he calls an "A B C of Anschauung" dawned on him ; the idea, that is, of discovering the simplest elements of sensation. If these elements could be discovered, the task of the teacher would resolve itself into combining them into higher and higher forms, so that the pupil might advance from the simpler to the more difficult with ease and security. Our syllabic and phonic methods of teaching reading,* our concrete methods of teaching arithmetic, all date

* It would be a mistake to imagine that no objections could be made to these methods. The "Look and Say" method regards words as wholes, and there are some arguments in favour of it. "From simple to complex" is a sound Pestalozzian maxim, but we should not start from anything so "simple" as to be uninteresting or insignificant. The point is touched upon again.

from these years at Burgdorf. Even the letters of the alphabet were not sufficiently simple elements for Pestalozzi, and he preferred to start with lines, angles, curves, and squares. Writing, drawing, and arithmetic (mainly mental*) were always strong points with Pestalozzi's classes, and the teaching of the second subject particularly won Herbart's approval when he visited Burgdorf in 1799. In 1801 appeared Pestalozzi's most valuable work on education, *How Gertrude Teaches Her Children*, to which Herbart published a friendly rejoinder in the following year. The institute at Burgdorf was now definitely put upon a national basis, and began to attract visitors from abroad.

In 1805 he removed to Yverdon, which town was destined to be for twenty years the seat of his labours. But he was now the principal of a world-famed institute and the author of educational works rather than an actual teacher. Students came from all parts of Europe, more especially from Prussia (then smarting under defeat, and resolved to retrieve her fortunes by means of improved education), to study the methods of the now aged reformer. Among them was Fröbel, who twice visited Yverdon, once in 1805 and subsequently in 1808, with his two pupils. In 1809 the institute was inspected by Father Girard, subsequently one of the most eminent educators of Switzerland. Radical faults were revealing themselves, such as disputes among the staff (especially between Niederer and Schmid), chaos of nationalities among the pupils, and dislocation arising out of the visits of foreigners.

The chief success of these closing years of Pestalozzi's life was the publication of his complete works, among the subscribers to which were the Czar of Russia and the kings of Prussia and Bavaria; Pestalozzi had previously interviewed the two first. In 1818 he opened and for a time successfully conducted an orphan school near Yverdon. In 1825 the

* Boys of twelve worked in their heads such problems as these: How many times is $\frac{2}{3}$ contained in $2\frac{3}{4}$? $44 \times 1\frac{1}{2}x = 60$. Find x .

parent institute, having fallen into utter disrepute, was finally closed.

The last two years of Pestalozzi's life were passed at Neuhof, the scene of his first philanthropic labours. Disputes had long embittered the life of the aged reformer, and they continued unabated until his death. *The Song of the Swan* was the most important work produced at this time. He died in 1827.

Pestalozzi was short, ugly, negligent (even dirty) in habits, absent-minded, and unbusinesslike ; but his unbounded enthusiasm for humanity and his forgetfulness of self won him the respect and even reverence of his contemporaries. In the words of Fröbel, "He set one's soul on fire for a higher and nobler life." During the disputes of the closing years of his life even those who opposed him regarded him rather as a victim than as an offender. His figure is the most pathetic in the history of pedagogics.

His religion is a matter of dispute ; but though he had no sympathy with any form of dogmatic theology, there is no clear evidence against the substantial orthodoxy of his views. If love of mankind is good evidence of sound religion, he was one of the most religious men that ever lived.



FRIEDRICH FRÖBEL.

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II.

LIFE OF FRÖBEL.

FRIEDRICH FRÖBEL was born in 1782 at Oberweissbach, in Thuringia. His life was remarkable at first chiefly for the absence of formal schooling, a fact which his exponent, Mr. Courthorpe Bowen, somewhat curiously (for a Fröbelian) regards as "unfortunate." * The boy grew up mainly in the open air, amid the hills and woods of Thuringia. In 1797 he was apprenticed to a forester, and thus his early companionship with the sights and sounds of "nature" was continued; botany became his special delight, and pantheistic views, more or less similar to those of his English contemporary Wordsworth, began to commend themselves to him. In 1799 he attended the University of Jena, and in 1805 determined to become an architect; but chance or providence soon showed him that his true vocation was that of teacher. Pestalozzi's name was then in everyone's mouth, and Fröbel visited him at Yverdon in 1805 for the purpose of learning more about the methods of his great contemporary.

He returned to Frankfurt (the scene of his first experiments in teaching), and in 1807 became (as Herbart had become a few years before) tutor to three boys who, in 1808, were taken by him to Pestalozzi's establishment at Yverdon. Many of Fröbel's principles were imbibed from Pestalozzi at this time (1808-10); many others are direct corollaries or amplifications of those of Pestalozzi.

* *Fröbel and Education by Self Activity*, p. 3.

In 1811 he was at the University of Göttingen (Herbart had left it a short time before, and there is some slight evidence of his influence over Fröbel), resolved to remedy by hard study the defects of his early education. In 1812 he was studying mineralogy at Berlin (the connection between mineralogy and education is not obvious to most people, but Fröbel discovered, or thought he discovered it). In 1813 the War of Liberation summoned him to sterner pursuits, but soon after the restoration of peace he began the great work of his life by opening a school at Griesheim (1816), which was removed in the next year to the now famous village of Keilhau. He was assisted by several relatives and friends* in this undertaking, so momentous for the future of education; and these friends remained, on the whole, faithful to him, though he was not always an "easy" man to deal with, and was almost as unbusinesslike as his master Pestalozzi. In 1826 Fröbel published his chief work, the *Menschen-erziehung* or *Education of Man*. The institute at Keilhau, readers must remember, was not a kindergarten, but merely a school on reformed (predominantly Pestalozzian) principles; the notion of the kindergarten proper had not yet arisen in Fröbel's mind.

It seems to have been suggested by the work of Comenius on the education of infants. Switzerland was the scene of Fröbel's early attempt in this new direction and, by a curious coincidence, the very town (Burgdorf) in which Pestalozzi performed his most significant work was the town in which Fröbel won his first recognition in the department of infant school education (1835). In 1837 he was back again at Keilhau developing his plans and receiving a good deal of patronage from persons of influence and rank. In 1843 he published his second leading work, the *Mutter und Kose-lieder*. His principles were becoming known, and a number

* "Langenthal and Middendorff may be looked upon, with Fröbel, as founders of the Institute."—*Zeh's Report*, 1825.

of institutions based upon them were coming into existence, when suddenly in 1851 an official edict forbade the foundation of kindergartens in Prussian territory, on the ground that they were atheistical in tendency. It should be mentioned that official suspicion had been awakened towards Fröbel many years before this event; revolution in education was interpreted to mean revolution in politics; moreover his nephew Karl Fröbel was known to be an advanced liberal, and the government was not over scrupulous in distinguishing between nephew and uncle. In 1852 the reformer, though deeply grieved by the suspicion that had gathered round his reputation, attended a conference of teachers at Gotha, and was enthusiastically received; but death was imminent, and Fröbel passed away on June 21st, 1852.

III.

NATURE LIGHT AND NATURE MOONSHINE.

BOTH Pestalozzi and Fröbel, like Rousseau (who, in the long run, was their inspirer), were in revolt against the traditions of the Renaissance or Revival of Learning. That great and inspiring event—no event greater or more inspiring ever occurred in the history of the world—had led to the enthronement, in all schools, of *book knowledge*. The men of the Renaissance had rediscovered the treasures of ancient learning, and they were so entranced by the discovery—especially as the invention of printing seemed providentially designed to help on the dissemination of books—that they set to work to transform every school into an institution where the classical languages, and practically nothing else, could be taught and acquired. Henceforth “scholar” meant “book-reader”—reader of Latin and Greek books. “Nature-study,” mathematics, the vernacular, nay, even two out of the three formal studies which had flourished during the middle ages (logic and rhetoric) were neglected; grammar, alone of the three, retained a place as a necessary auxiliary to classical study. Dr. Blimber’s Academy, described in *Dombey and Son*, represents with some fidelity the Renaissance ideal carried into an extreme form.

The “bookishness” of schools continued for two or three centuries, despite the protests of “Realists,” that is, of men who regarded a knowledge of external nature as possessing a higher value than any knowledge or culture that could be

derived from books. The most violent of all these protests came from Rousseau; and, whether or not we regard him as sincere in his polemic (he was in arms against everything, and had a good eye for "effect"), we must at any rate admit that his work on education, the *Emile*, is a great book—scarcely, perhaps, the greatest that has ever been written* but certainly the most audacious and fascinating. In the *Emile* Rousseau planned out a non-literary scheme of education—a scheme of education without books and "according to nature," with none of the restrictions which past methods were supposed to put upon the child's free impulses. His plan was thus largely negative, though not wholly so, for he made many practical suggestions of great value, more especially in connection with geography, drawing, natural science, mathematics, and manual work. Pestalozzi borrowed from him in part, but as, unlike Rousseau, he was practically engaged in education, some of his predecessor's doctrines have come to be identified almost entirely with his name, though in strict justice they should be regarded as ultimately due to the originality of this amazing Rousseau.

In essence, therefore, the great educational revolution proclaimed by Pestalozzi and Fröbel was largely of the nature of a revolt against bookishness. The revolt was by no means confined to professional educationalists. Wordsworth was a contemporary of both men, and we find him saying:

" One impulse from a vernal wood
 May teach you more of man,
 Of moral evil and of good
 Than all the sages can."

It is only right to point out, here and now, that, in this aggressive form, such a protest against "bookishness" is nonsensical and pernicious, and that the words put by the same

* What is the greatest? Perhaps Herbart's *Allgemeine Pädagogik*; perhaps Fröbel's *Menschen-erziehung*; perhaps (if we consider its early date) the *Didactica Magna* of Comenius; or shall we say Dr. S. Hall's *Adolescence*?

poet into the mouth of his good friend Matthew are inspired wisdom in comparison :

“ Where are your books ?—that light bequeathed
 To beings else forlorn and blind !
 Up ! up ! and drink the spirit breathed
 From dead men to their kind.”

No doubt the “bookishness” that followed the Renaissance took wrong forms, and caused a neglect of important educational agencies, but there can be no heresy greater than the doctrine that “moral evil and good” can be learnt from external nature ; such things, in point of fact, are learnt largely from the source which Wordsworth professed to despise :

“ that light bequeathed
 To beings else forlorn and blind ” ;

in other words, from books ; though they are learnt also from the *living* books of our fellow men around us.

It may be advisable to dwell further (it is a constantly recurring question) upon this delusion that external physical nature can teach man virtue and duty. If Pestalozzi and Fröbel held it in this absolute manner, we should have to conclude that they were blind guides, or at best that their theories were bad, however valuable their practical suggestions may have been.

Why do I call Wordsworth’s view “nonsensical” ? For the reason that ever since Darwin’s *Origin of Species* was published, thinking men have no longer been able to regard nature in herself as wholly wise or kind. There is a calmness, a callousness—one might almost say a cruelty and wastefulness—about her that precludes the reflective man from holding this view. There goes on everywhere in Nature a “struggle for existence,” and the “fittest” who survive are not necessarily the most loveable creatures, but rather those that are strongest, or at any rate those that are most adapted to their special circumstances. Mr. Courthope Bowen, in his valuable

work on Fröbel, says that by Fröbel's "spiritualising of nature and natural processes — which reminds us continually of Wordsworth's teaching—he seeks to correct and change the view that self-preservation and worldly gain and prosperity are the highest aims for man" (p. 194). But if, in reality, nature presents us with a "struggle for existence," she is the last divinity from whom to learn any such noble lesson. True, in the care of the female for her young there is a powerful element of self-abnegation, but on the whole Nature teaches not this lesson, but that of self-preservation—the very lesson reprobated by Fröbel and Mr. Bowen. No "spiritualising" of nature is of any avail if the hard facts are as stated. Mr. Bowen's view of "Nature" is almost as "quaint and conventional" as the view which he attributes to Comenius (p. 3). Instead of "Nature" being a wholly tender, scrupulous, far-seeing goddess,

" From scarpèd cliff and quarried stone
She cries 'A thousand types are gone,
I care for nothing; all may go.' "

The whole of Tennyson's powerful lines in *In Memoriam* should be read.*

Matthew Arnold is equally emphatic;

" Know, man hath all which nature hath, but more,
And in that *more* lie all his hopes of good.
Nature is cruel, man is sick of blood;
Nature is stubborn, man would fain adore;
Man must begin, know this, where nature ends;
Nature and man can never be fast friends."†

Thus it is important to remember, at the outset of any discussion of the views of Pestalozzi and Fröbel, that men's views of "Nature" have greatly changed during the last half century; and that no man who has any pretensions to a knowledge of modern thought ever goes to "Nature" in the

* His tremendous description of Nature as "red in tooth and claw" is now classical.

† *In Harmony with Nature*,

way that Rousseau, and many who were influenced by Rousseau, went. We study "Nature" with interest; we learn much from her; but we do not learn matters that concern our moral or spiritual life, any more than the Greeks, despite their best endeavours, could learn these from geometry. "Nature study" owes a great deal to Rousseau, Pestalozzi, and Fröbel, and no person in his senses depreciates the value of the subject, but there are undoubtedly subjects of still greater value—the great humanistic subjects. For,

"Man must begin, know this, where nature ends"; and to know "the best that has been thought and said in the world" (to quote Matthew Arnold once more) is more important than to know about rocks or plants or reptiles.

How far were Pestalozzi and Fröbel under deluded views with regard to external "Nature"? Fröbel, I think, was certainly carried away by his pantheism, and went to the full length of his contemporary Wordsworth, believing even in human pre-existence; the soul was "originally one with God" (F. 117). He therefore saw, even in crystals, hidden suggestions pertinent to man's salvation, and he had "religious communion with nature" at an early age (F. 11). Mr. Bowen, and most of Fröbel's followers, throw aside the crystal symbolism, but do not always realise that Fröbel's entire standpoint on this question must be abandoned. Man rightly studies "Nature," but not for the sake of learning morality from her; as Professor James says, she "reveals no spiritual intent." Man himself is morally greater than Nature, and all the moral qualities he discovers in her (the "purity" of the lily, and the like) are but a drapery that he throws over her spiritual nakedness. I do not sympathise with those who lay overwhelming stress on the "cruelty" of Nature, for there is grave doubt whether the "cruelty" is not often more seeming than real; at the same time, "Nature" is calm, if not callous, and shows no traces of the sentiment that Wordsworth and Fröbel discovered in her.

Pestalozzi's view seems at first sight highly contradictory. Readers of De Guimp's *Life* will carry away the impression that he was almost as infatuated with the worship of "Nature" as his predecessor Rousseau. "Lead your child out into Nature, teach him on the hill tops and in the valleys. . . . Let him be taught by Nature" (G. 45). But as we study his words more intently, we find that Nature is not always the loving and sagacious goddess that Fröbel and Wordsworth imagined her to be. Man must "take the instruction of our race out of the hands of blind and senseless Nature;" the blind and senseless one gives "powers and means, but no guidance" (C. 97). Elsewhere we learn that Nature is "sportive" (C. 159), that her "ways are ways of darkness and death," that she is "sensuous," and incapable of "coming into harmony with the seeing, spiritual, moral nature of men" (C. 160, 161). I confess that, after believing in Pestalozzi's discipleship towards Rousseau, I was surprised to come across so many passages of this sort. In *Leonard and Gertrude* they are especially striking. It is necessary for society "to make man something quite different to what he naturally (!) is"; his "natural instincts" have to be "repressed"; the "natural man" has to be "transformed," or "freed from his chief faults and from the vices inherent in his natural condition" (P. 122, 123). The astonishing fact is that passages like this belong to Pestalozzi's early period, when the influence of Rousseau might have been expected to be specially noticeable.

Yet again we come across other passages which suggest the Rousseau view; instead of being "blind," nature "unites together heterogeneous elements of her materials for the achievement of her end" (C. 79). "Nature only does us good; she alone leads us uncorrupted and unshaken to truth and wisdom" (C. 31). "There is but one (good method of instruction)—that is, the one that rests entirely upon the eternal laws of nature" (C. 150).

What, then, are we to regard as Pestalozzi's real attitude? Or was he hopelessly inconsistent and obscure?

We must first of all notice that in pedagogical literature "Nature" does not always mean external Physical Nature; it may mean "Human Nature."

We have to study the *child's* "nature," the "natural" laws of his mental and physical growth. Instead of starting with a number of *subjects* (Latin, &c.) and compelling the child to learn these in the way that an adult might learn them, we should study the child himself, and discover what subjects and what methods of teaching those subjects are most suitable to its various stages of development. This principle is a much safer one than the preceding; "Nature," in the sense of the *child's* nature, *must* be attentively studied by teachers unless their work is to be a failure. Here too, comes out another contrast between "Nature" and "books." The right method of presenting a subject in a book for adults is not necessarily, and, indeed, is very unlikely to be, the right method of presenting the subject to children. An adult learning a new foreign language may rightly begin with grammar; this may be the *logical* method; but such a method would be wholly unsuitable for the teaching of children, whose minds work naturally from concrete to abstract. Again, theology or mathematics may, for an adult, commence with abstract propositions; this may be the *logical* method; but, for children, such a method would be profoundly unpsychological. These examples will serve to show that there is a very real contrast between "bookish" (*i.e.* logical, systematic) methods of teaching, and "natural" methods, that is, methods which are based on careful study of child development. Morf, in summarising Pestalozzi's chief work on education, expresses this principle in the words, "Teaching must follow the path of development, and not that of dogmatic exposition" (G. 241).

There is no doubt that children pass "naturally" through various stages of development; their powers unfold in a fairly

regular order. Many thinkers believe that this order corresponds, roughly at least, with the order in which the human race has evolved from the animal state, through the savage state, into the present state of civilisation. In the embryo there are well marked stages—one for example, in which the future human being possesses temporarily the gill clefts of a fish: but such pre-natal stages are of no educational importance except as indicating the presence of a great and suggestive law. After birth, however, the law still seems to operate, and here it frequently has educational suggestiveness. Babies have great power of clinging with the hands to a bar; this stage may correspond to the arboreal condition of primitive man, when he was an ape-like being, swinging among the branches of the forest. Dr. Stanley Hall in his recent work *Adolescence*, regards the fear of snakes as an echo from this arboreal time, when tree-climbing reptiles were the only animals that needed to be feared by our ape-like ancestors. Again, like the primitive savage, the child endows various inanimate objects and perhaps still more an object like a doll, with life; and, again like the primitive savage, confuses dreams with realities. At a somewhat later stage the boy feels an irresistible impulse to throw stones at birds and animals—another reminiscence of the vanished past of the race; Toddy's respect for "blugginess" (*Helen's Babies*) tells, perhaps, the same story. Examples like these—and they could be greatly increased in number—serve to illustrate the doctrine that there is a parallelism between the development of the child and the evolution of the race, a doctrine that has been put forward by philosophers in all ages, and is especially prominent in writers of the present day.

As a philosopher, Pestalozzi was obscure, he frankly admitted as much; but there is good reason to believe that this doctrine of parallelism was vaguely present in his mind, as, indeed, it was present in the minds of many of his contemporaries, and in that of his follower Fröbel. He repeatedly

uses such expressions as "following the course laid down by Nature for the education of humanity" (G. 76); he bids us "imitate Nature, that, from the seed of the greatest tree, produces nothing at first but a scarcely perceptible growth, which slowly and insensibly increasing from day to day and hour to hour gradually develops into trunk, branches, twigs, and leaves" (G. 185). In such exhortations there is a kind of blending of the two meanings of "Nature" already discussed; he is sometimes thinking of external Nature, and trying to learn lessons (Comenius like*) from its modes of operation; he is sometimes thinking of the *child's* "nature," its "natural" modes of development; more often, perhaps, he is thinking confusedly of the two things. We in these days are called upon to think more exactly than Pestalozzi; and if we make the attempt we shall probably come to the conclusion that while the former mode of studying "Nature" has little educational value (for plant and similar analogies do not help us much), the second mode is of great value; is, in short, identical with modern "Child Study." It is such a study that Pestalozzi was indicating in the words, "The course of Nature in the development of humanity is invariable; it is therefore impossible that there should be two equally good methods of teaching. One only is good, and it is that which is entirely based upon the eternal laws of Nature" (G. 234).

But Pestalozzi himself admits, as we have seen, that sometimes the educator must look beyond "Nature." In his most important book, *How Gertrude Teaches her Children*, after giving many weighty reasons for founding moral and religious education, not on catechisms and dogmas, but on the relationship of mother to child, he concludes that when the child is about to lose the benefit of home influence, "you

* Comenius, a truly great and far-seeing educator, talks a great deal of nonsense about "Nature"; he recommends only one teacher for a class *because* there is only one sun in the heavens; the teacher should proceed slowly *because* the hatching of a bird is a slow business, and so on. Pestalozzi's plant analogy, employed also by Frötel, but regarded as dangerous by Herbart, is on all fours with these and similar analogies of Comenius.

can no longer trust Nature," for "Nature" would now lead to blind sensualism; on the contrary, the teacher's or parent's business is to give moral maxims or principles. The passage is important, as it shows that, *in the long run, the educator has to look forward towards an ideal, rather than backward to the operations of Nature*; these latter must be known and understood, indeed, co-operated with so far as advisable; but they cannot give a final verdict upon any educational question.* Nay, even previous to the stage when the child is to leave home there is a struggle with "Nature"; "obedience," Pestalozzi tells us, "is opposed to the child's first instincts, and would never result from them naturally" (G. 238). Still the child's natural instincts have somehow to be made the basis even of the teaching of obedience; the child has to learn its dependence for food upon the mother.

On the whole, Pestalozzi's attitude towards "Nature" (in the two senses already given) seems clearer and more satisfactory than Fröbel's. We find surprisingly few traces of the day-dreaming pantheism summed up in the Wordsworthian stanza:—

"One impulse from the vernal wood,
May teach you more of man,
Of moral evil and of good,
Than all the sages can."

—*The Tables Turned.*

We find a frank recognition that if a child is left to "Nature"—*i.e.*, not subjected to systematic and deliberate education—it will be mentally and morally ruined. "Wherever you carelessly leave the earth to Nature, it bears weeds and thistles. Wherever you leave the education of your race to her, she goes no further than a confused impression on the senses"; to turn a child adrift amid "vernal woods" is not even the best way to teach the leading facts about such woods (C. 161), for the reason just given. Art, *i.e.*, formal education, is needed to

* I wish to make this standpoint clear here and now.

present objects in carefully selected ways, and to prevent the mind from being overwhelmed by the multiplicity of impressions.

Pestalozzi clearly held that we can learn a good deal from "Nature"; there is an analogy he would say, between human life and sub-human life, and by noting the laws operative among animals and plants we can gain hints for human education. As Huxley said: "What has been decided among prehistoric protozoa cannot be annulled by an act of Parliament." Pestalozzi was thus practically advocating the science of comparative psychology. But he saw that human Art was also needed. "What (external) Nature puts before us, scattered over a wide area, and in confusion, the Art (of education) puts together in narrower bounds and in regular sequence, and brings nearer to our five senses, by associations which facilitate and strengthen our susceptibility to all impressions, and so raise our senses to present to us the objects of the world, daily in greater numbers, for a longer time, and in a more precise way. But the power of the Art depends on the harmony of its results and work with the essential workings of Nature. Its whole action is one and the same with that of Nature" (C. 76-7).^{*} In other words, while Nature suggests general laws of method, the task of education is to adapt these general laws in particular ways, to the raising of humanity. "How happy shall I be in my grave if I can unite Nature and the Art in popular education" (C. 29). Modifying a well-known philosophical epigram, we may say that Nature without Education (Art) is blind; Education without Nature (without obedience to Nature's laws) is empty and ineffective. Nature is "careful of the whole, careless of the single creature, and particularly of man." She requires that "the guidance of our race should be taken out of her hands" (C. 241).

It was precisely this that both Pestalozzi and Fröbel, despite all their "Nature" worship, attempted to do. Edu-

^{*} Clearly Pestalozzi is here contradicting what he has said elsewhere.

cation tries to improve on "Nature," or, at any rate, upon "Nature" as she would be apart from human interference. What are Fröbel's "gifts" except attempts to do more for man than Nature would do, if unaided by human foresight? Fröbel may urge that Education should be "passive, observant, protective"; in point of fact, his own system was a very "active" one indeed. Its merits were not those of passivity, but those of active and deliberate conformity to child nature.

Readers must remember afresh the fact already urged in the introductory remarks—that though we are professedly dealing with Pestalozzi and Fröbel in these and coming pages, the master mind whose influence is everywhere felt is that of Rousseau. His is the voice that is so often heard; whose fallacies inspire books like *The Curse of Education*; whose views, though in essence reactionary pass everywhere for educational radicalism; and who, but for the force of tradition, might now be dominating every school in Britain. Pestalozzians and Fröbelians are saved from the dangers of Rousseauism by their Idealism—but narrowly, and are in constant peril. Fröbel himself was saved, and if we are faithful to him we cannot go far wrong; but even he, when he left the safe ground of child study and began to philosophise, could not break away from the spell of Rousseau's dazzling paradoxes. Herbart—really the only uncompromising enemy of Rousseau—dominates Germany with the result that Fröbel is but little studied in that country. The whole problem resolves itself into these alternatives—and the application is far wider than to education: "Are we to frame for ourselves an ethical ideal, and mould our educational system in accordance with it, while thankfully using 'Nature' so far as she will co-operate with us; or are we to look back into the past and merely imitate the laws operative among lower forms of life?" Herbart's answer is "Yes" to the former question; his system is "deduced from the aim of education." Rousseau's answer

was "Yes" to the second; the bookless savage was his ideal. As soon as the followers of Pestalozzi and Fröbel can shake off the influence—so far as it is really distracting and pernicious—of Rousseau, the time will come for that final synthesis with Herbart which will herald the triumph of educational thought. Until then, the warning is needed; *study* Nature's methods, *employ* Nature's methods when these are good; but ever keep in mind the words of the great and neglected English educationalist who never bowed the knee to Rousseau:—

"Man must begin, know this, where Nature ends;
Nature and man can never be fast friends."

IV.

ANSCHAUUNG.

PESTALOZZI'S leading idea is represented by the German word "Anschauung."* Amid the fog of Pestalozzi's ideas, this "Anschauung," Mr. Wells tells us, "looms like a haze-girt lighthouse on the explorer."† The word, however, conveys no meaning to an English reader, and must somehow be translated. But translation is no easy matter. "Observation," "Intuition," "Sense-Experience," "Sense-Perception," "Sense-Impression" have all been suggested. "Anschauung" means a face-to-face experience of the realities of the universe, whether these realities are minerals, plants, animals, mental or moral phenomena, historical persons or events, or what not. In a *special sense* the word is applicable to direct experience of the first three kinds of realities, but the occasional *wider meaning* must not be forgotten.

Pestalozzi was not the first to urge the necessity of basing all education upon Sense-Impression, but the doctrine is indissolubly connected with his name, and he has probably done more for its propagation than any other man in the history of pedagogy. His own words, in *How Gertrude Teaches Her Children*, are emphatic :

"Everything confirms me in my opinion that the only way of escaping a civil, moral, and religious degradation, is to have

* The corresponding adjective is "anschaulich." The syllable "schau" must be pronounced as an *sh* sound followed by a diphthong somewhat similar to the *ow* in *how*. The *ung* forms a third syllable. Advanced readers will pardon this footnote for the sake of readers to whom the word may seem a very amazing one.

† *Educational Times*, September, 1894.

done with the superficiality, narrowness and other errors of our popular instruction and recognise Sense-Impression (Anschauung), as the real foundation of all knowledge" (G. 233).

He had very good reason for laying stress upon Anschauung. Schoolmasters had ignored the principle. "A mania for words and books had pervaded the whole system of popular education"—"an empty chattering, fatal alike to real faith and real knowledge, an instruction of mere words and outward show, unsubstantial as a dream" (G. 233). Education, in fact, as indicated in the previous chapter, had never shaken off the Renaissance bookishness, though it had unfortunately lost the fine enthusiasm which had inspired the leaders of the movement; words were learnt without being understood, with the result that sound thought and judgment could not spring up. Moreover, mere words and mere rules of grammar being hopelessly uninteresting, could only be "taught" by ample use of the rod. In protest against so unpedagogical a procedure, Pestalozzi enunciated the doctrine commonly summarised in the formula "Things before Words"—the doctrine of Anschauung or Sense-Impression.

At the same time the reader must be again warned that it is easy to undervalue a bookish education, and Rousseau, who in this and so many other matters, was the master of Pestalozzi and Fröbel, talked disastrous nonsense about there being "no other book than the world." "The child who reads ceases to think." Books are priceless things, and, as a recent writer says, "the first and most universal function of the school is to initiate . . . into the ampler world the more efficient methods of the reading and writing man."* The men of the Renaissance felt this; their ideal was largely right, though their methods were unpsychological.

Not only was there excessive bookishness in the education of Pestalozzi's time, and thus an ignoring of the direct study

* H. G. Wells. *Mankind in the Making*, p. 200.

of physical realities, but there was little or no recognition of the fact that general and abstract notions are psychologically the product of concrete experiences. A child does not at first know the meaning of a general term like "horse"; if it chance to have seen a horse and heard it called by that name, it is quite likely that a cow or a sheep will be called "horse" likewise. To form a yet more abstract notion like "virtue" or "duty" is obviously more difficult still; and, again, though a child may early learn to count "two marbles," "three marbles," and the like, the abstract numbers "two," "three," "thirty," and abstract mathematical statements like "seven fives make thirty-five," are not easily acquired.* Every teacher now recognises the truth of these statements, but not every teacher recognises that the establishment of the truth was the work of Pestalozzi. Nay, even at the present time Pestalozzi's teaching is largely ignored in one of the most important departments of educational work; for abstract dogmas and wordy catechisms are still employed—though not always in quite so senseless a way as formerly—to teach "religion" to children. Pestalozzi saw that such a procedure resulted in nothing but the learning by heart of various meaningless words, for the spiritual experiences represented by the words are quite beyond young children.

The doctrine of Anschauung or Sense-Impression may thus be summed up in the two well-known phrases, "Things before Words" and "Concrete before Abstract." Of these two, the former is not altogether beyond criticism, for "word" and "thing" must generally, at any rate, be learnt side by side with each other †; still even this maxim is valuable so far as it warns us against allowing a child to learn words that will

* Their acquisition may have taken the race centuries. Among savages "3 sheep may be exchanged for 3 measures of grain; 4 skins for so many weapons. But the sheep, measures, skins and weapons must be actually seen; there is no certainty that, for instance, since 2 sheep and 1 sheep are 3 sheep, therefore 2 goats and 1 goat will be 3 goats." Cunningham, *Story of Arithmetic*.

† And a limited case, partly based on Pestalozzi's own example, can be made out for teaching "words before things." We shall see this later on.

long remain meaningless, while the second maxim is, I think, almost wholly beyond criticism. For us moderns the lesson conveyed by the *Anschauung* doctrine is that "formal" subjects, like grammar and arithmetic, should be based upon rich concrete experiences; that feeding the mind is more primary than exercising the mind, though both are indispensable; that the study of English should mean, in the first instance, acquaintance with English books and the thoughts they contain; in a secondary sense, grammar-drill. Recent educators like Dörpfeld, in Germany, and Professor Findlay, in England, are laying stress on this doctrine that "formal" studies should not be pursued wholly for their own sake—as forms of "mental gymnastic"—but for the sake of the "real" studies that should underlie them.

It need scarcely be added that Fröbel was here faithful to Pestalozzi. In the words of Superintendent Zeh, who visited Keilhau in 1824-5, "even dead grammar with its host of rules becomes living, inasmuch as (the pupils) are taught to study every language with reference to the history, habits, and character of the people to whom it belongs" (B. 30). "Formal" subjects were kept in close relation to "real" subjects. "Things before words" was much a maxim of Fröbel as of his great master.*

* As late as 1862 we find the following words prefaced to *A Child's Guide to Knowledge; by a Lady*. "It has not been thought advisable to introduce any wood cuts or engravings, which might take off the attention of children for whom this little book is professedly designed; and the authoress trusts that the simplicity of the language in which the information is conveyed renders *picture* illustration altogether unnecessary; she believes, indeed, they would not add to but rather detract from the usefulness of the work." Yet Pestalozzi had died 45 and Comenius 191 years before!

V.

APPLICATION OF THE DOCTRINE OF ANSCHAUUNG.

IN what is perhaps Pestalozzi's best-known work, *How Gertrude Teaches Her Children*,* he shows how the principle of Anschauung may be applied to the teaching of various subjects.

ARITHMETIC.—To learn "by heart" that one and one make two, that one from two leaves one, that four and three make seven, or that four times three are twelve, does not mean that

any real acquaintance with the properties of numbers has been made. Such "learning" is
Arithmetic. a mere matter of words. Pestalozzi therefore introduced the methods now universally employed in infant schools and junior classes: the use of peas, stones, nay, also of fingers; of strokes and groups of strokes †; while for teaching fractions he invented the device of dividing squares horizontally and vertically—a device expounded in every book on school-management and annually appearing in examination papers. The use of squares may be compared with Fröbel's use of the cube, divided and undivided. I cannot discover that Pestalozzi used the regular solids very much; his mathematics was mainly, I think, of two dimensions. On the whole, in no department of educational work was Pestalozzi more successful or more influential than in this; elementary mathematics, in fact, was one of the strongest features of the various classes and institutes in which he worked. The power of solving problems in (mainly mental)

* Summarised in G., Ch. 12.

† Of course, such methods had long been used by mankind, but not with a definite pedagogical intent.

arithmetic possessed by his pupils would clearly be regarded as extraordinary in these days, though possibly his immense success was partly due to the fact that his pupils worked **mainly** at this and one or two other subjects. Pestalozzi, in fact, was an enthusiast for mathematics; "sound and form very often carry seeds of error and deception in themselves—number never" (C. 132).

It would be a great mistake to suppose that the employment of an "anschaulich" method in mathematics involves the ignoring of attention and judgment; these processes are very actively called into play; but they are based upon Anschauung or Sense-Impression.

It is interesting to note that the common prejudice against permitting "counting on the fingers" was not shared by Pestalozzi and Fröbel. Obviously, indeed, if there is any good reason for using strokes, marbles, and the like, in teaching elementary operations in arithmetic, there is still better reason for using the fingers. In fact, the human race, as the word digit (*digitus*=a finger) implies, used fingers from the first, and our decimal system has this origin.

Enormous stress, then, was laid both by Pestalozzi and by Fröbel upon mathematical subjects. To Pestalozzi they appeared as lying at the root of clear ideas, while Fröbel declared that "human intellect is as inseparable from mathematics as the human heart from religion" (S.F.I. 84).

DRAWING is closely connected, on one side at least, with Arithmetic; on the other side (which cannot at this point be dealt with), it touches Design or Art. It was a neglected subject until Pestalozzi's influence began to work.* He, in contending that the fundamental elements of instruction were sound, number, and form (an incomplete list, by the way), naturally came to lay stress on language, arithmetic, and drawing.

Drawing.

* Aristotle, Comenius and Locke had previously seen its value.

To draw a material object is clearly one of the best possible ways to obtain an *anschaulich* acquaintance with it. Pestalozzi introduced the use of slates for this department of work. The child was first taught to distinguish between vertical, horizontal, oblique, and parallel lines; between right, acute, and obtuse angles: and to study the properties of sundry figures. (G. 414.) The eye was trained to judge of lines and angles, and the hand to draw them. Drawing from objects was finally, though not at first, preferred to drawing from copies.* Writing had to follow, not precede drawing, of which, in Pestalozzi's opinion, it was merely a special application. The stress he places on measurement is very great, and wins the hearty support of recent writers on education like Professor Armstrong. It was a mistake, he held, to begin the study of drawing with vague, inexact productions; *measurement should be prominent from the first.*† Ramsauer one of Pestalozzi's pupils, gives an unfavourable account of his teacher's method, or rather want of method; but there is reason to believe that his account does not cover the whole facts of the case.

The importance of drawing can scarcely be over-estimated. It produces an exactness of thought that is otherwise difficult to attain; and, moreover, the child's nature seems to cry out, at a certain period, for facilities and opportunities to draw, a fact most clearly and ably expounded in the recently published work, *Education Through the Imagination*. All modern educational thought lays stress on drawing. Fröbel used drawing in checkers rather extensively.

* There is something to be said for both plans.

† Here Ruskin agrees: but it is just possible that Pestalozzi carried the principle too far. To be constantly measuring is not good for the sense of Form. (C. 237.) An important demurrer to the Armstrong view has just come from Dr. Stanley Hall (*Adolescence*, II., 155 f.), who thinks that the stress on exactness and precision—the application of measurement to objects—is often premature. "Very much thoroughness and perfection violates the laws of youthful nature and growth." When we find "doctors differing" on so elementary a point, we see the meaning of the statement that "the study of education is in its infancy."

GEOGRAPHY.—Pestalozzi's method has "completely revolutionised the teaching of this science. The child is first taught to observe the country about his home, not on the map, but on the land itself. It is the child

Geography. himself who draws the map, correcting the mistakes in his first attempt after another visit to the spot. Having thus learned to understand and read maps, he continues his study by the help of large blank maps hung on the wall." (G. 414.) Country walks were a prominent feature in Pestalozzi's method. Making models of the district in clay seems to have preceded—sometimes, at least—the drawing or study of maps. Fröbel followed suit. "His great achievement was to lay the foundation of geography in 'home knowledge,' that is, points of the compass, forms of surface, courses of streams, roads, etc., learned in country walks." Here, too, geography connected itself with mathematics, for the child had to learn to make plans and charts of the district.

NATURE STUDY—The study of external nature, so long neglected in schools, received a great impulse from Pestalozzi. Even the child in the cradle was to make a start, of a sort ;

Nature Study. for Pestalozzi spoke with approval of the Swiss mother who hung in the sight of her infant a coloured paper bird.* At a later stage, the children, in their country walks (see under *Geography*), would collect specimens for study at school, and more elaborate specimens were provided in other ways.

Early in his career Pestalozzi realised that nature study, properly pursued, might be a thing of more than merely intellectual value. "To have one's own garden and grow all sorts of plants ; to collect butterflies and insects, and classify them with exactitude and perseverance. . . . What a

* The paper bird (an *artificial* object) might have been improved upon. Here come in some of Frobel's suggestions. Herbart has a powerful passage urging a similar method with the baby in the cradle. *Science of Education* (Tr.), pp. 158-9.

preparation for social life! what a safeguard against idleness and stupidity!'' (G. 42.) Recent facts go to show that even criminals in jails may be morally elevated by an interest in nature study, which, indeed, is a subject that appeals to many whose interest in still higher things is difficult to awaken.

Definitions are difficult for a child—nay, difficult even for adults. On no account, therefore, should they be insisted upon prematurely.† Description must precede definition. There must be laid a broad basis of Sense Impression. Yet Pestalozzi laid great stress upon the application of *language* to nature study and similar subjects. Children were made to utter in chorus various self formulated statements about the objects seen and handled. Apart from such an *anschaulich* acquaintance with objects, the language exercise would, of course, be in a measure, un-Pestalozzian.

Nature study took even a higher place in Fröbel's than in Pestalozzi's system, and he laid stress not only on country walks but upon such practical applications as gardening and the care of animals. Games and songs were to bear, more or less, upon nature study, which, indeed, should become, in the opinion of many Fröbelians, the central subject of the school curriculum.

OBJECT LESSONS.—Object Lessons are the beginnings of instruction in physical science. The child must be taught to study "the different conditions of water in repose or in motion,

and its transmutation into dew, rain, vapour,
Object Lessons. steam, hoar-frost, hail, etc, then its action and its influence on other objects of nature; . . . the solution of salt or sugar, their reduction from their liquid to their solid condition, their crystallisation; or the fermentation of wine in the cellar, its turning sour and its transmutation into vinegar;

* Pestalozzi was not always scrupulously faithful to this, as we shall see, and cautious writers like Bain admit that "principles, maxims, theorems, formulas, definitions may be given a little in advance of their being fully understood." But "the licence must not be abused." *Education as a Science*, p. 206.

the transformation of alabaster into plaster or marble into lime, sand into glass, etc." (P. 202). By such homely observations as these, and by the careful formulation of such observation in language, the way is paved for the discovery or enunciation of the laws of science.

Object Lessons are generally regarded as an invention of Pestalozzi. It was undoubtedly due to him that they have assumed an important place in modern education; but we find that Rabelais, Comenius, and Rousseau also recommended giving to children an acquaintance with concrete natural objects.

Object Lessons are supposed to teach observation and to increase the pupil's power of speech by giving him something to describe in his own language. They are described by De Guimps as "exercises in which the children made their own remarks on the object placed before them." The modern "Object Lesson" is false to Pestalozzi's ideal so far as the teacher monopolises most of the speech relative to the "object"—in fact, *tells* the pupil what to see and say. Dr. Stanley Hall believes, moreover, that the "Object Lesson" has led to a "tyranny of things," "a growing neglect or exclusion of all that is unseen." *

Comparison and contrast should be extensively employed in the course of object lessons. "By putting together objects whose essential nature is the same, your insight into their inner truth becomes essentially and universally wider, sharper, and surer. The one-sided, biased impression made by the qualities of individual objects, as opposed to the impression that their nature should make upon you, becomes weakened." (C. 81.) In other words, *general* notions are attained. But here the Object Lesson proper has, perhaps, given place to elementary science teaching.

* *Adolescence*, II., 463.

MORAL AND RELIGIOUS TRAINING.—Pestalozzi extended the principle of Anschauung to the teaching of morals and religion. Abstract dogmas, generally appearing in the cate-

chetical form, “learnt by heart” and wholly unmeaning to children, passed for the most important and vital departments of school work.

Pestalozzi saw that, except as a language exercise (C. 456), it was absurd for the child to be made to talk about faith and virtue, or even about God, before he had acquired some concrete moral or spiritual experiences. “He who loveth not his brother whom he hath seen, how shall he love his Father in heaven whom he hath not seen?” But even the love of mankind must be preceded (Pestalozzi thought) by a still more primitive and intimate love—that of the mother. Thus the truly *anschaulich* method of learning religion begins with this love of the child for its mother. Trust, gratitude, patience, obedience, love are “the beginnings of conscience” (G. 239), and it is towards the mother that these are first directed; subsequently they take a wider sweep. “The child knows his mother’s step . . . he loves whatever is like her. . . . This smile at the likeness of his mother is a smile at humanity, and the seed of brotherly love, the love of his fellow men, is sown.” (G. 238.) In “the first vague feeling in the child’s mind that it is not well for him to be angry with his mother who loves him, that his mother is not in the world solely for him, that everything is not in the world for him, that even he is not in the world for himself alone”—in these ways “a first ray of duty and justice has reached his heart.” (G. 239.) Subsequently, when the child begins to feel independent of his mother, a sense of dependence upon higher powers may come. Pestalozzi’s final view may, I think, be summed up in these words: “Though I am thoroughly convinced that religion is badly used as an exercise for the understanding and as a subject of instruction for children, yet I am equally convinced that, as the affair of the

heart, it is a necessity for my nature even at the tenderest age ; that as such it cannot too early be awakened, purified, or elevated." (C. 211.) To drill prematurely into the childish memory "the subjects of positive theology and their never-ending controversies" was unpedagogical in the extreme. (C. 50-1.)

There is little more that can be said about Pestalozzi's methods of "teaching" morality and religion. At Stanz he taught neither the one nor the other, though he occasionally pointed out to his pupils the moral reasonableness of certain conduct. "I strove to awaken the feeling of each virtue before talking about it, for I thought it unwise to talk to children on subjects which would compel them to speak without thoroughly understanding what they were saying" (G. 159). This seems to me the only justification of the extraordinary doctrine put forward in these days that "virtue cannot be taught"; it is of little use to be in advance of the child's development. Pestalozzi had no objection to the reading of the Bible in schools, nor to school prayers, but the main strength of his system was elsewhere. At Yverdon the religious instruction was mainly in the hands of Niederer, and he is said to have adopted a plan which some recent Herbartian and American educationalists have recommended—beginning with "natural religion, passing on to the Old Testament, and then finally to the New" (G. 285).

Fröbel, on the subject of Moral and Religious Training, speaks precisely the same language as Pestalozzi, though he puts forward more numerous and definite suggestions than his predecessor. As Mr. Bowen says, "From the home as centre, the child's human kindliness and desire to help are to spread in ever-widening circles outward till they embrace, for the full grown man or woman, all nations of men whom God hath made—reaching at length, and mingling with and becoming one with, the love of our Father which is in heaven" (F. P. 75).

"The feeling of community, which unites the child at first with mother, father, and family, is the germ of all genuine religiousness." "Genuine religion . . . must come to the human being when it is a nursling, or not at all" (S. F. I. 15). Fröbel had just the same objection as Pestalozzi to dogmatic teaching. "If a man is to understand many truths, especially religious truths, he must be made to experience much, *i.e.*, to become conscious of the events (perhaps small in themselves) of his own religious life" (F. 119). Bribes to virtue—even the promise of heaven, he condemned entirely. But simple stories and pictures relative to the early life of Christ won his approval.

While essentially in agreement with Pestalozzi over this disputed question, Fröbel appears to advantage in working out such matters as the social and moral value of co-operation in play and work; a sense of mutual duty and of duty to the community was to be produced—ultimately a sense of "citizenship"; and there is no doubt that the means to this end suggested by Fröbel are wholly right in conception. Gardening *in common*, and, indeed, almost all his proposals (*e.g.*, story telling) bear very directly on moral, social, and religious life. To the best of my knowledge Pestalozzi did not elaborate anything parallel with this; in fact, on this moral or spiritual side of education he was constructively weak, though his principles were sound so far as they went.

Fröbel has also analysed youthful faults more skilfully than Pestalozzi. He traces boyish faults largely to unnatural methods of education—to the thwarting of natural development. There is no doubt that our present-day "sit still" methods of teaching do much to *generate* friction and mischievousness, and that Fröbel's ideas—applied throughout the whole of school life—would vastly reduce such difficulties.

Other youthful faults Fröbel traces to sheer thoughtlessness, and he condemns in words that are not a whit too

strong, those adults who attribute these faults to badness of heart, and thus create a sense of guilt. "Parents, teachers, adults very often punish children for faults and sins which they taught them. Punishment, especially, and, above all things, scolding, put faults into children; bring to their knowledge sins of which they never dreamed" (S. F. I. 66).

REMARKS ON CERTAIN OTHER MATTERS.—Reading and Writing do not, strictly speaking, come into the present discussion of the Anschauung doctrine: they are arts which, though of immense importance, do not introduce the pupil *directly* to the realities of the world; "were it not that they are necessary as instruments . . . we should not think of wasting time over them."* As Pestalozzi himself says: "The child must be brought to a high degree of knowledge, both of things seen and words, before it is reasonable to teach him to spell and read" (C. 26); "the child must learn to talk before he can be reasonably taught to read" (C. 36). Still, as reading and writing have to be taught, and as the teaching of them must be based on *anschaulich* methods, they may here be briefly considered.

Pestalozzi thought that writing (at first very large) should be preceded by the exercises in drawing already mentioned. The slate-pencil affords better preliminary practice than a pen. Pestalozzi's use of transparent horn is mentioned later.

Reading and writing should be taught side by side; for the former subject he suggested the employment of movable letters and of a careful gradation of sound, syllables, and words, identical in principle with that worked out by Professor Sonnenschein.

Fröbel, too, regarded writing as a special application of drawing, and held that it should at first precede reading, though subsequently the two subjects should proceed side by side.

* Laurie, *Institutes of Education*, p. 55.

Pestalozzi was early struck with the need of good picture-books * as a useful supplement to actual objects of sense. In the realm of history—a realm neglected by Pestalozzi—pictures must take a high place, and the poor state of history teaching is largely due to the neglect of this means of instruction.

**The Use of
Pictures.**

Fröbel employed pictures extensively, mainly in connection with his songs and stories, as aids to the imagination. Children, as most educationalists are beginning to recognise, pass through a drawing stage corresponding to the invention of picture writing by the race, and at this stage even the roughest pictures—and Fröbel's were rough—are idealised, and serve as starting points for whole trains of imagination. †

* Comenius saw the pedagogical value of pictures. Edward Thring had to urge in 1883 that good pictures were of great educational utility! He had likewise to confess, in 1887, that “drawing had never been pressed into service as it ought to have been” (*Addresses*, p. 133). Such is the spirit of English Secondary Education! It despises Pestalozzi for a century (“I read your essay on Pestalozzi . . . and I found there was nothing whatever in him,” said one of the Endowed Schools Commissioners to Mr. R. H. Quick), and then discovers, much to its own satisfaction, the very things he had discovered a century before. At present it is adopting the same attitude towards Herbart.

† Miss Macmillan's brilliant and (upon this special subject) almost exhaustive book, recently published, *Education Through the Imagination*, deals extremely well with this question.

VI.

THE DOCTRINE OF SELF-ACTIVITY.

THE doctrine commonly known as that of "self-activity" is specially prominent in the methods and works of Fröbel, though it occupies a by no means insignificant place in those of his predecessor Pestalozzi.

There is at the present day a good deal of vague, mysterious, and stilted dogma put forward in the interests of this principle, and a certain amount of discredit could easily be thrown upon it by anyone who wished to be critical. Some writers seem almost to suggest that a mentally-starved child, out of the depths of his unaided inner consciousness can generate ideals and motives of a most wonderful character.*

Put into a plain form, the doctrine amounts to this: The child comes into the world not only endowed with the power of receiving impressions but of reacting upon them. Nay, it even possesses—especially if well nourished—a kind of spontaneous energy capable of generating movements and tendencies (though not ideals and motives) of its own—movements and tendencies preceded by no apparent *external* † stimulus whatever. At certain stages of development these may take quite determinate forms; there may spring up a craving to make drawings, or to throw stones at birds, or to wander in the woods, or, later on, to find a mate. Inner impulses, often of great force, become operative, and these, if provided with appropriate external means for

* What Professor Darroch, for example, in his *Herbart: a Criticism*, means by "self-activity," I am quite unable to discover.

† But probably there is an internal stimulus due to blood conditions, the formation of brain connections, and the like.

their pursuit or gratification, almost dominate the entire being for a time. After a while they become, perhaps, less exacting, or if in the first instance the environment was unfavourable to gratification, the impulses may die out altogether or be greatly enfeebled,

It is clear that parents and teachers should, where possible and advisable, avail themselves of this innate impulse towards action. If the child passes through a stage of development in which there is a strong tendency to make *drawings* of various objects, the teacher should seize hold of the tendency and afford opportunities for gratifying it. If, however, there is a strong natural tendency towards thieving or destructiveness, this should *not* be gratified. The teacher should co-operate with "Nature" wherever she appears to be moving along right lines, and should frankly oppose her—starve her,* in fact—wherever she appears to be heading for destruction.

This is almost the sum and substance of the Pestalozzian and Fröbelian doctrine of "Self-activity." Let the child's innate tendencies manifest and gratify themselves—nay, feed them with appropriate food—provided the tendencies are wholesome ones. "Instruction must be connected with a certain need and want of the pupil." (S. F. I., 89.)

Clearly there is nothing mysterious or metaphysical or recondite about all this. Fröbel, it is true, connected it with his pantheism; the inner impulses represent "the Divine in Man," which has to be "unfolded and brought to his consciousness by means of education." (S. F. I. 3.) It is quite as legitimate to begin from Herbart's standpoint, and to say that, as the goal of education is to form a good character, and the means to this end are the various subjects of instruction, the teacher must naturally adapt his teaching to the child's innate tendencies, so far as these are in conformity with the ideal. It was Fröbel's imperishable work to have studied

* Fröbel and his followers lapse occasionally from sublime "Nature worship," and admit that this starving is necessary. See Bowen, p. 121.

reverentially these innate, outward-going tendencies in the young child; it was Herbart's to show that without an ideal such tendencies cannot be judged.

It is probable that every impression received passes into action of some kind. "There is no sort of consciousness whatever, be it sensation, feeling, or idea, which does not directly and of itself tend to discharge into some motor effect."* A bright object draws an infant's eyes: the smell of an orange makes our mouths water; the thought of an heroic deed makes our muscles tense and our breathing fast.

Thus to every mental process there are two sides, a passive or receptive and an active or outgoing. Education must care for both. Until Fröbel's time the former side received almost exclusive attention; children's minds were openly compared with "empty receptacles" and the like; while at the present day there is a distinct tendency, not exactly operative in school but stirring notably among "advanced thinkers," to forget that they are receptacles at all, and to picture them as perpetual-motion machines. This is as fatal an error as the former. Children's minds *are*, we must confess, receptacles, whether "advanced thinkers" rage at us or not. "There is a void before us which we have to fill," as one of the sanest and greatest of British educators † says, far saner and greater than the men who speak disparaging words about " cramming pupils with knowledge." But we have to remember that minds are not *mere* receptacles, that they have to *react* upon impressions, that they have to *express themselves* or the ideas they have acquired. Education seems fated to swing from one fallacy or half-truth to another, and at the present moment the old doctrine that "*nihil est in intellectu quod non prius in sensu*" seems in danger of being forgotten altogether by some of the cheap-jack apostles of "Self-activity."

Pestalozzi and Fröbel compared the child with the plant, and less often with the animal. The whole force of the

* James, *Talks to Teachers*, p. 170. † Dr. Laurie, *Institutes of Education*, p. 79.

analogy is based on the fact that plant, animal, and child have natures of their own, and must be treated accordingly. A currant-tree or a jackdaw will not flourish if it is constantly interfered with; “we avoid acting on them by force, for we know that such intrusion upon their natural growth could *only* injure their development. Yet man,” continues Fröbel, “treats the young human being as if it were a piece of wax, a lump of clay, out of which he can mould what he will. O man! as you stroll through garden or meadow, field or copse, why use you not your senses to perceive what Nature by her silent language will teach you?” (S. F. I., 5.) Fröbel’s message is clear enough and valuable also, though he is on the brink of a tremendous precipice of fallacies; he points out to us (and here he is absolutely right) that the child’s nature must be understood by us if we are to educate him aright; we must know, in a general sort of way at least, what impulses are likely to stir in the child at different periods; and we must apply ourselves to a watchful care of these impulses, and to give them scope, when possible and advisable. He goes even so far as to claim that education must be “from the very first passive, observant, protective, rather than prescribing, determining, interfering.” (S. F. I. 5.)

When the practical tasks of education are under discussion, Fröbel, is a “prince of educators,”* and nearly always right; there is no great pedagogical blunder anywhere among his suggestions. But words like the above may do an immense amount of mischief to unwary readers, and I must therefore hedge them around with limitations and qualifications.

He bids us use our senses to perceive what “Nature, by her silent language,” would teach us. Well, let us use our senses, and study what “Nature” does with the pollen and seeds of the very plants in our “gardens, meadows, fields, and copses.” And as we use them we shall discover—what Fröbel seems never (unless I greatly mistake) to recognise

* Davidson, *History of Education*, p. 236.

frankly—that thousands of the germs of life perish daily of starvation. Tennyson found that

“Of fifty seeds

She (Nature) only brings but one to bear.” *

The seeds are all right; the principle of life is there; but the soil is barren, or the rainfall is inadequate, or some herbivorous animal comes along and eats the seeds up!

Thus the principle of life is not enough in itself; the living being must receive nutriment—and this nutriment nature does *not* (whatever Fröbel may think) always supply. Nature is destructive as well as creative;

“I bring to life, I bring to death;” *

many a moth

“with vain desire

Is shrivell'd in a fruitless fire;” *

many a butterfly is gobbled up by a Robin Redbreast, and causes a poet like Wordsworth to ask insanely:

“What ailed thee, Robin, that thou couldst pursue

A beautiful creature

That is gentle by nature?

Beneath the summer sky

From flower to flower let him fly;

'Tis all that he wishes to do;” †

Life is everywhere pulsating with “Self-activity,” and yet, unless conditions are favourable, this “Self-activity” cannot save life from falling before the assaults of death unless there are adequate food, adequate protection, and the like.

Again, I say, Fröbel's optimism and pantheism never lead him into serious pedagogical errors; he is nearly always right when dealing with the practical problems of education; but as his vague “Nature”-language is misleading to the unwary, I wish to warn readers against the delusions which this

* *In Memoriam.* † *The Redbreast and the Butterfly.*

language may generate. The warnings may be thus summarised:

(1) "Nature"—External Nature, that is to say*—is no safe guide to the educator. One plant may flourish in a state of nature; another may perish; whole species, in fact, *have* perished. Why? Not always because they were interfered with by meddling man, but because they could not obtain sufficient nutriment or moisture in the regions where "Nature" had placed them; or for other reasons equally uncomplimentary to "Nature."

(2) Thus the inner principle of life, or the principle of "Self-activity," as Fröbelians call it when dealing with the human being—nay, "the Divine in Man"—requires for its development more than to be left alone; if "left alone" it may as soon die of mental and moral starvation as the seed of the plant may die amid inhospitable surroundings. It requires food. The "Internal" depends as much on the "External" as the "External" upon the "Internal."

(3) Coming back to the point from which we started; the mind is both passive and active; it demands, like the body, both *food* and *activity*; teachers of past generations have often laid a too exclusive stress upon mental *food* (knowledge, facts for the memory, etc.); undiscerning followers of Fröbel, and people in revolt against present-day education, are likely to lay a too exclusive stress upon *activity*; while Fröbel, Herbart, Dr. Laurie, and every really sound educator, whatever their abstract theories may be, preserve a balance between the two views. They see that it is as great an error to ask for "activity" from a starved mind, as to expect gymnastic exercises from a starved body; but they see also that merely "feeding" the mind with knowledge is not enough, though it is vitally necessary; the mind must be fed *in accordance with its own inner laws of development*, the food being appropriate

* Nor is the child's *internal* nature always a safe guide; but that is another matter.

at each stage, and thus capable of arousing and increasing active response. In short, the *outer* factor of education (the material provided) must be appropriate to the *inner* factor (the stage of natural development attained by the child). We do not feed a new-born baby's body on beafsteaks; nor should we feed a three-year-old child's mind on long division, nor *any* child's mind on mere parsing and analysis.

Fröbelian readers may not like the matter-of-fact treatment above accorded to the “Self-activity” principle. But it seems to me necessary to get rid of the mysticism with which the principle has been surrounded. There is nothing more “divine” about it than about any other side of mental life; the passive and the active, the receptive and the creative are equally human, or equally divine, or equally diabolical, characteristics of the mind. The creative impulse generally remains dormant until stimuli from without give it form and direction, a fact which Herbart has summed up in his statements—true, though not the whole truth—that all action (purposive, voluntary action) “springs out of the circle of thought,” and that therefore the formation of the circle of thought is the teacher's primary though not exclusive task. Now the circle of thought is a product of forces acting from without, not from within; no “Self-activity” can generate it. But inner impulses may and do exert great influence. The same stimuli, the same ideas, produce very different effects on different individualities. It is the task of the teacher, while keeping in view the moral aim of education which, being the same for *all* pupils, prescribes certain subjects for common study, to make ample use of each child's innate and peculiar powers. These frequently show themselves in attempts at creation, and all such attempts should be encouraged. This is the only true meaning of the misleading statement that education is a process of “drawing out” not of “putting in.” Pestalozzi himself uses this language occasionally, though it is in flat contradiction to his own principle of *Anschauung*. Education must both “put

in" and "draw out." Materials must be provided (objects, stories, facts, books, and the like) for the child to exercise its powers upon; to this extent education is very much an affair of "putting in." But independent effort is also expected. No educational writer or worker, however brilliant or pretentious, is a safe guide if he lay exclusive stress upon one of these sides of mental life to the exclusion of the other. Fröbel's most characteristic piece of practical work—the "gifts"—have, as his expositor sees, "mainly to do with *taking in* and *assimilating*," not with *giving out* or expression.*

In fact, Fröbel at times seems to contradict himself expressly. At one moment he protests against "treating the young human being as if it were a piece of wax, a lump of clay" (S. F. I. 5), or a "vacuum" (S. F. I. 37); at another moment he admits that "in earliest years the whole being is surrendered (laid open like a sensitive plate) to impressions from without" (S. F. I. 14). "Man is developed . . . in part by what he, as a boy, receives from without and takes into himself" (S. F. I. 101); though Fröbel goes on to say (and I think the statement is practically nonsense) that "what can be put into a man is, properly speaking, *there* already" *Something* is there, I admit; latent powers similar to that of the unfed steam engine, or, still better, of the bent elastic spring; we may freely admit this while emphatically denying that the external factor is not something quite additional, and vitally necessary (S. F. I. 102). Quite sound, however, is his statement that "the mental gifts of God to man . . . are to be satisfied by variety coming to meet them" (S. F. I. 103); Self-activity, moreover, may sometimes, as Fröbel recognises, take the form of imitation (S. F. II. 107).

* Bowen, p. 147.

VII.

STAGES OF DEVELOPMENT.

FRÖBEL'S great and imperishable work was, in addition to the above, to map out the stages of development through which the healthy and growing child tends to pass from the time of birth. It is clear, however, that the mere discovery of such stages does not close the educational question; we must have an educational ideal, and then avail ourselves of these stages or ignore them, according to their conformity with that ideal. If, with Herbart, we accept "character-forming" as the aim of education, and with him interpret the term in a large and generous sense, we shall accept the Fröbelian stages so far as they seem to conform with our notion of a good and complete moral character, and feed the child with mental food suitable for each stage. If, however, natural impulses of a less wholesome kind begin to reveal themselves, we shall ignore or starve them.

In Pestalozzi's system there is the germ of this development doctrine, as, for example, when he declares that Education is the art of helping Nature to develop. "There should be a sequence, so that beginning and progress should keep pace with the beginning and progress of the powers to be developed in the child." (C. 26.)

The sequences mapped out by Pestalozzi—*Anschauung* before words; knowledge before judgment; abstraction and reasoning impression before expression; *Anschauung*, knowledge, and speech before spelling and reading; drawing before writing; describing before defining—all these are applications

of the doctrine that human nature develops according to organic laws and that the task of education is to employ rather than violate or neglect these laws. But Pestalozzi never did full justice to the very early stages of development, the stages previous to clear Anschauung and vocal expression; that was left to Fröbel, who is thus the father of the infant school.*

It is said that Arnold of Rugby made the Rugby boys into premature adults. His contemporary, Fröbel, would have protested against this. Each stage of childhood, he would say, has its rights; to abbreviate it unduly, still more to ignore it altogether, would be fatal to perfect development; later stages would suffer because the earlier ones were hurried over. "The boy is not a boy, or the youth a youth, simply because he has attained the age of boy or youth, but by virtue of having lived through first childhood, then boyhood, faithful to the claims of his soul and mind and body." (S. F. I., 17.) "Child, boy, human beings of every age ought to have one sole aim—to be at each stage what this stage requires. Then each succeeding stage will grow like a fresh shoot out of a healthy bud." (S. F. I. 18.) Fröbel is constantly, in all these exhortations, thinking of the unfolding of a bud; the "plant analogy" is all-dominant.†

Perhaps still more dominant is the notion of parallelism between racial and individual development, in which Fröbel and many of his contemporaries and successors believed—a suggestive analogy, but one whose pedagogical value is still

* Comenius had, however, thought much on the same question, and Pestalozzi is credited with being the father of the *English* infant school at least. For Greaves, who visited him at Clendy, carried back Clendy ideas to his native country.

† In one passage Frobel seems to me to undermine, in a measure, his own doctrine. "If our sons are already in the latter part of their boyage, and have not yet learnt nor yet developed what properly belongs to the beginning of boyhood, it were better to turn back to that beginning, to childhood even, than finally to miss what could yet be recovered" (S. F. I. 105). Surely the internal principle cannot be played with in this fashion. If ignored in boyhood it loses its vitality, and no returning to the beginning is possible. But probably we may say that no human power becomes completely atrophied until many years of disuse.

under discussion. Undoubtedly we are right in attending to any suggestion that this analogy provides us with, but we must scrutinise it carefully. The fact, if it were a fact, that the first invented musical instrument was a tom-tom would not necessarily justify us in providing tom-toms for very young children. Educational questions cannot be solved so easily. Still, to remember that in the history of the race oral speech preceded documents, observation of nature preceded the reading of books, picture-writing preceded alphabetic writing, empirical measuring preceded abstract mathematics—to remember these things is to have a store of suggestions for educational procedure, not absolute rules, but provisional hints requiring careful investigation before they are finally adopted.

Is there any one stage of supreme importance? No, says Fröbel. Each has its claims, though if we do try to assess relative importance we must regard the very earliest stages as the most momentous in result.*

The stages succeed each other somewhat as follows:—

THE NURSING STAGE, when the senses receive various stimuli and the use of the body and limbs is acquired. The child should have a ball or some other object swinging before it in its cradle.† Reception, assimilation, is here the all-dominant process. (Fröbel practically admits that the child's mind *at this stage* is a *tabula rasa*, though elsewhere he rejects the notion of pure receptivity.) Pestalozzi's view is that "the new life itself is nothing but the just awakened readiness to receive impressions; it is only the awakening of the perfect physical buds that now aspire with all their power and all their impulses towards the development of their individuality."

* Here comes in one of the sharp contrasts between modern and Renaissance education; the latter ignored the very young child altogether as it could not be stuffed with Latin. The fact that great processes were taking place in the infant's mind was ignored. It was Rousseau that awakened men to this truth.

† One can conceive certain objections to this; but there is no space for minute criticism.

(C. 25.) Here the co-existence of a receptive with an aggressive attitude is suggested.

THE CHILD STAGE (two or three to seven years) commences with the appearance of language, and language is its chief characteristic. The home environment must be good, or the

The Child Stage. consequences will be irrevocable; the words

now beginning to be employed must be well pronounced. As in the infancy of the race, the child regards word and thing as one and indivisible, and likewise regards all external objects as more or less alive (stage of "animism" in the race). The impulse to *play* is very strong, and should be indulged; the child should also be allowed to become well acquainted with natural objects. The mother's rhythmic "dandling," accompanied by sounds, is of importance in connection with the development of speech and song. Both of these latter begin to reveal themselves in force, and should be encouraged; the child also collects coloured stones and the like, and brings them to the parents; he is inquisitive about the nature of various objects, as shown by the tearing up of flowers. Then comes the drawing instinct, an impulse to be creative, which again, like the other impulses, should be encouraged in every way.

THE BOYHOOD STAGE (seven years onward) is the stage when language becomes definitely distinguished from things,

and when the child becomes conscious of

The Boyhood Stage.

itself. Definite instruction, rather than mere training, is now possible; we deliberately aim at imparting knowledge to the child.

The boy asks to share in the work of the home; he loves to struggle with physical difficulties, lifting, carrying, etc. He is inquisitive, too, and asks constant questions. He loves the woods and fields, climbs trees and hills, explores caves and glens, brings back insects, etc. He makes a little garden, invents and tests, builds with clay and sand, seeks to rule over matter. The tendency to vigorous play is also strong.

But another tendency begins now to appear; there is a demand for stories, legends—subsequently for history. Nay, the child may even love to invent such stories for himself.

Fröbel never worked out into detail the methods that should be adopted in the school *proper*, as distinct from the kindergarten.* But he indicates that school is the place for abstract thinking, and not for mere Anschauung; while the “transition class” is, as its name implies, the place for transitional work—the passage from concrete Anschauung to abstract thought. He laid great stress on comparison of objects as a necessary basis for clear general or abstract notions.

The songs, the gifts, the occupations, and the various subjects of the Fröbelian curriculum, will be briefly considered in the course of some of the following sections.

* It seems to me that Dr. Stanley Hall's *Adolescence*, published a few weeks ago (1904), represents a logical and magnificent continuation of Fröbel's work. Like Miss McMillan's *Education Through the Imagination* and Professor Findlay's *Principles of Class Teaching*, it suggests that the “synthesis of Herbart and Fröbel” foreshadowed in the Introduction is proceeding apace.

VIII.

APPLICATIONS OF THE SELF-ACTIVITY PRINCIPLE, AND OTHER MATTERS.

MOVEMENT AND GESTURE are early modes of self-expression, and the Fröbelians, by encouraging dramatic action, recognise this fact. Gesture gives force and meaning to words. Mere stiff gymnastics (military or other) do not possess this advantage.

SPEECH AND COMPOSITION, oral or written, are forms of self-activity. They are considered elsewhere in the present book.

CLAY MODELLING, whose value is strongly urged by the Fröbelians, was also encouraged by Pestalozzi. At Yverdon, after the geography of the district had been studied in the open air, models of the district were made in clay; it was only after this had been done that maps were used.

PASTEBOARD MODELLING had a place in Pestalozzi's scheme. So had the use of *cubes* for building up solid structures.

COLOURED PAPER, STRIPS OF STRAW, CLOTH OR LEATHER had to be woven into patterns—original, if possible.

DRAWING, of course, takes a very high place in Pestalozzi's and Fröbel's system; it is alike a means of expression, and (what does not concern us here) a test of a child's

Drawing. knowledge, and an incentive to further observation; our ignorance of the appearance of many common objects is revealed the moment we begin to draw them from memory. It is the first of these uses

that bears specially on the "Self-activity" question. Mr. Bowen considers that Fröbel's own suggestions lay too great stress on outline, and too little on colour and shade; we should begin with masses of these and work gradually towards improvement of outline. Fröbel thought much of checker-work, but this, however valuable, rather hinders than encourages free activity and self-expression; the child should rather draw, however roughly, the things it sees and touches.*

PLAY is a prominent feature in Fröbel's system. Others before him had recognised its value; "he saw its true evolutionary weaning, and the part it should take in education." It

Play. is clear that, even apart from the healthy exercise afforded, play may be associated with songs, pictures, and the like, and may thus help the processes of impression and expression. External objects become familiar; social qualities are fostered; inventiveness and adaptiveness encouraged.

SCHOOL AND HOME.—Both Pestalozzi and Fröbel, as we should expect from their Anschauung doctrine, laid stress upon the necessity of busiding education upon home experi-

School and Home. ences; the mother is a factor of supreme importance for both reformers. School should

"firmly attach the power and knowledge which it can give the child to what his mother and his home life have already given him, to what he knows, what he has, what he can already do." The processes of school education should be "suitable to the child's condition, and begin exactly at the point where the child has left off" (P. 147-8). There was at first a strong vein of utilitarianism in Pestalozzi; "the poor ought to be educated for poverty. . . . They must be fitted to earn their livelihood, and must not be given desires above their station" (P. 144). This reminds us of Rousseau's plea that the poor did not need

* Bowen, p. 57.

education. But twenty-four years later Pestalozzi's view widened, though he never lost sight of the inevitable limitations of the poor. "I desire to facilitate the acquisition of the elements of all arts and sciences to the lower classes, and to open to the faculties of the poor and weak the doors to art, which are the doors to humanity" (P. 142).

Fröbel set his face resolutely against the crude utilitarianism of Pestalozzi's earlier years. Nothing was more foreign to his whole standpoint than for a child to be prepared prematurely for some calling. "The effect is most injurious, most weakening, when a distant (*quasi* final) aim is set before the boy too soon—something external to be copied, or to be tried for; *e.g.*, preparation for a certain office or sphere of action. For child, boy, human beings of every age ought to have one sole aim—to be at each stage what this stage requires" (S. F. I. 18). Nothing is more fatal, he tells us, than to allow the natural unfolding of the child's powers to be checked in this way. "All-round human development missed and neglected in boyhood can never be recovered. Let us all be candid for once and confess that we feel mental wounds, which never heal while we live; hardened spots in our hearts, that soften no more; dark places in our intellects that will never get bright; and all this because noble human feelings and thoughts natural to childhood were in our childhood crushed or lost, chiefly through early misdirection" (S. F. I. 105).

But Fröbel felt as strongly as Pestalozzi that school work should develop naturally out of home or family life (S. F. I. 93; II. 45-6). Unfortunately the advice is not of much practical value, for the modern schoolmaster cannot always exert influence upon the homes of his future pupils, and such applicability as is possible for Fröbel's principle must be summed up in the form: "Adapt your teaching to the environment of the pupils; start from that and work outwards." There is a feeling in the air at present that rural

schools should be more definitely rural in spirit than they are, less "bookish"; and the principle is sound, provided the supreme value of books (as springs of culture, character, and consolation) is not unduly forgotten. Fröbel's expositor, Mr. Bowen, urges the application of the principle to urban kindergartens (F. 77-8); the use of songs dealing with country life (like Fröbel's own *Lieder*) would be out of place; "for little city children we should not tell of *The Fish in the Brook*, but of *The Sparrow in the Street*; not of the *Nest* with its birdlings, but of the *Cat and her Kittens*; not of *The Charcoal Burner*, but of *The Costermonger*, *The Cabman*, *The Newspaper Boy*; . . . and even instead of playing at 'mowing the grass,' it would be better for these little city children to play at 'sweeping the room.'" These remarks show the difference between an unintelligent and slavish obedience to the letter of Fröbel's prescriptions and an intelligent grasp of their spirit.

It is not without interest to remember that one of the complaints brought by Fröbel against the school in which he was educated was that he was taught the geography of England in isolation from that of Germany; moreover, the subject of spelling was not connected with any other, "it hung loosely in the air" (F. 9). But this point perhaps comes for consideration under the head of correlation of studies.

That Fröbel was no mere dreamer—that he even recognised the claims of a reasonable utilitarianism—is seen in his suggestion that the boy should be employed in errands or messages that would task his judgment; nay, he did not object to purely technical instruction (instruction for the future occupation) provided it was not premature (S. F. I. 98). This combination in Fröbel of sound practical common-sense—of recognition of the claims of home and economic life—with ideal, though often foggy, views of human education, constitutes one of his greatest merits as an educator.

SINGING.—The Greeks had laid stress on music, and, centuries later, Luther (whose sagacity as an educationalist has never been fully appreciated outside Germany) urged the

value of singing. But to Pestalozzi and
Singing.

Fröbel* is due the practical introduction of this subject into the curriculum of the primary school; even as early as the Neuhof episode, we find the former making use of it. Learnt at first by imitation, music, in Pestalozzi's scheme, was subsequently studied in its systematic aspects; † much stress was laid on correct time—as we should expect from our knowledge of Pestalozzi's mathematical instincts. Even the language exercises were more or less rhythmical.

Pestalozzi asked (and we English may ask the same question), “Why has not the progress of the arts during so many centuries been able to find something to carry on the work of these (mothers’) lullabies in after life? Why has it not yet given us a series of national songs capable of elevating the very humblest souls and leading from the simple cradle melody to the sublime hymn of praise to God?” (G. 186). It is true we have such songs, but they are too few in number, and very inadequately known. I remember a party of Englishmen on the Continent who were quite unable to sing even a verse of “Rule Britannia,” much less the entire poem.

Both at Burgdorf and at Yverdon singing, not merely in “lesson time,” but everywhen and everywhere, was a characteristic feature, and was often accompanied by marching—a hint for English teachers. Why should a class when singing be stationary? And is there, or is there not, any value in the plan of combining singing with musical drill?

On the whole, however, England has taken to heart Pestalozzi's message with regard to this subject. The solfa system of Mr. Curwen was a direct result of his influence.

* Herbart, unless I am mistaken, forgot this subject—a grave omission.

† This, again, is “following nature” (and following history), though I am not aware that Pestalozzi explicitly pointed this out. The child and the race sing long before they study musical theory.

Everyone knows the stress which Fröbel placed on singing. His *Mutter und Kose Lieder* (Songs for Mother and for Nursery) was second only to his *Menschen-erziehung* ("The Education of Man") in importance, and though even his admirers admit that he was "not a good writer of verse," his plan was excellent—to give simultaneous exercises in observation (of accompanying pictures), speech, singing, and the use of the limbs.

THE FRÖBELIAN GIFTS, ETC.—The present volume of notes is concerned rather with the "ideas" of Pestolozzi and Fröbel, in fact, with the drift of their thought, than with all of the applications of this. Little space will therefore be assigned to Fröbel's "gifts," though in the eyes of many people these constitute his most characteristic piece of work. But for the sake of completeness they must be briefly referred to; other works may be consulted for fuller details.*

First Gift: Six soft woollen balls of different colours. The child, already familiar with a ball, now learns to distinguish, compare, and contrast; and the balls themselves form excellent playthings.

Second Gift: A sphere, cube, and cylinder, all of hard material. New distinctions of shape, hardness, etc., are thus learnt.

Third Gift: A large cube divided into eight small cubes. Distinctions of size, of whole and part, of half, quarter, eighth, etc., are acquired. The child also uses his powers of construction and design with the cubes.

Fourth Gift: A cube divided into eight parallelopipeds.

Fifth Gift: A cube divided into twenty-seven small cubes, some of these also being divided.

Sixth Gift: A cube divided into twenty-seven parallelopipeds, some of these being also divided. Countless exercises

* The brief account here given is based on Mr. Bowen's exposition.

and constructions can be performed with these three last gifts ; areas can be determined and the principles of balance or equilibrium be investigated ; likewise the principle of the transference of motion.

Then come thin tablets of various shapes and colours ; sticks, rings, and so on.

It is clear that the use of such objects may serve as an admirable introduction to mathematical, artistic, and other realms. Their applications, in fact, are almost countless.

The Fröbelians also lay stress, as we have seen, upon such “occupations” as clay modelling and cardboard modelling, paper folding, wood carving (Sloyd), brushwork in colour, plaiting, and wax or cork work with sticks.

As Mr. Bowen points out, the “occupations” are mainly expressional, while the “gifts” have mainly to do with taking in and assimilating ; “the former give invention, power, skill ; the latter give discovery, insight, ideas.” The “gifts” must precede the “occupations,” in accordance with the principle that the human must, generally speaking, be fed before it can be very successfully exercised.

IX.

LANGUAGE.

WE have considered the two doctrines of Anschauung and Self-activity, the former being specially characteristic of Pestalozzi, and the second of Fröbel, though both doctrines are shared by the two reformers.

Second only to the stress laid on Anschauung in Pestalozzi's system is that laid on language-power. It is clear that mere knowledge, however "anschaulich" in basis and character, is robbed of much of its value and efficiency if disconnected from speech-power; there is little use or pleasure in possessing it if we are unable to put it into expression. Nay, the more we study psychology the more we shall find how language clarifies knowledge and makes it precise. All abstract notions ("virtue," "colour," and the like) would be almost or quite unattainable without the use of words.

Fröbel and modern psychologists—Pestalozzi, too, though less frequently—urge that all *impressions* must be connected with *expressions* if they are to be definite and indelible. In ordinary school-work the teacher who teaches geography without making his pupils draw maps, or who gives information lessons without asking for composition exercises in return, bids fair to be a failure. The receptive attitude is necessary—let none of our "advanced thinkers" persuade us to the contrary—but it must pass over, either immediately or after an interval, into the creative or expressive attitude; nay, there are certain stages of development in which there is an over

whelming impulse in the healthy child, to express itself in language, in drawing, or in other ways, and the teacher should eagerly avail himself of this impulse, and provide a sufficiency of material for its operation.

Language is the most important of all the means of expression possessed by man, and schools have from the first always laid stress upon language-skill in one or other of its forms. The unfortunate tendency of the Renaissance was to confuse language-power with one of its departments—the power of reading and writing the classical languages; and until recently a similar tendency has been operative in connection with modern languages and even the vernacular; men forgot that though the power of reading books was one of priceless value, the power of oral speech was more primary and fundamental. Language (*lingua*, a tongue) is primarily an affair of vocal utterance; only secondarily does it become an affair of written signs. To “learn French,” nay, even to “learn English,” has meant, until recently, to *read* French or English books and to *know* French or English rules of grammar; it has not meant—as it ought *primarily* to mean—to acquire the power of expressing one’s thoughts orally in the respective languages, and to understand the spoken expressions of others. Gradually we are learning this lesson, and the teaching of modern languages is becoming in its first stages increasingly a matter of the tongue and ear; in later stages, of course, the eye has to be trained to read and the hand to write, for no one but a fanatical follower of Rousseau will attack the use of books—at the *right stage*.

Pestalozzi gave much successful attention to language exercises, though some of them were a little crude in conception. Speech, we must remember, is a form of physical exercise for the chest, as well as an essential feature of mental training. Pestalozzi at Stanz devised the plan of simultaneous rhythmic repetition, and he continued it at Burgdorf, where, on the testimony of his pupil Ramsauer, the exercises

in speech were by far the best of any that were employed ; Pestalozzi's absent-mindedness in other subjects was notorious.

Boys, what do you see? A hole in the wall. A tear in the partition. Very well. Repeat after me, I see a hole in the wall paper. I see a long hole in the wall paper. Behind the hole I see the wall. Behind the . . . etc.

This is sound method; impression and expression proceed almost *pari passu*; but Pestalozzi seems to have adopted other methods which appear at first sight in flat contradiction to his own principle of Anschauung; he often made his pupils *repeat statements that were almost or quite unmeaning to them*. Herbart was at first astounded at this "committing to memory of names, sentences, definitions, and the apparent lack of concern as to whether it was all understood," and argued out the matter with Pestalozzi. It is significant that the two thinkers arrived (tentatively, at any rate) at the conclusion that *full comprehension need not always precede the use of words; the subject-matter must be comprehensible and accessible, but need not be entirely comprehended at the time the words describing it are used; "time and opportunity,"* as Herbart says, "*will later on bring comprehension.*" Moreover, as Herbart also points out, words *are* things for the child; they are concrete, sensational, *anschaulich* experiences, and it may be right temporarily to exercise the child's vocal and auditory organs with them even if the words are not understood, provided they do not deal with wholly abstract and inaccessible matters.* Still, on the whole, the usual

* These remarks are of some importance as suggesting certain limitations to the doctrine of "Things before Words." [Herbart's early works on Pestalozzi are translated by Dr. Eckoff in Appleton's International Education Series.] In looking more closely into Pestalozzi's views on this question, I have been astonished to find what stress he laid on language power *even when all meaning was absent from the language*. "I let children of three years old spell the wildest nonsense merely because it was nonsensically hard. . . . I even tried to make gradually clear to a few older children complicated and, to them, wholly incomprehensible propositions in natural science. They learnt the propositions thoroughly by heart. . . . It was at first a mere parrot-like repetition of dull, uncomprehended words" (C. 32). "We must never think, because a

interpretation of Pestalozzi's system—that knowledge of things must precede, or at least accompany, the acquisition of the corresponding words—is a safe one. As was said by one of his pupils, “language was taught us by the help of Anschauung; we were taught to see, and in consequence to form correct ideas on the relations of things; we had no difficulty in expressing ourselves clearly on what we thoroughly understood” (P. 72). The dialogue partly quoted above is sufficient to show what is here meant. The system of “Object Lessons,” generally attributed to Pestalozzi, was quite as much a system of language-drill as of observation-drill; pupils had to describe in their own words the objects and processes which they saw. Bain recognised that this was Pestalozzi's attitude; nay, he attributed to him the view that the Object Lesson should be “merely a way of teaching the use of language,”* a statement, I think, far too strong, for Pestalozzi's view was that the lesson should be one in Anschauung as well as in language. The many sound criticisms directed by Bain and Spencer against the modern Object Lesson lose some of their force when we keep in mind the second function they discharge; they give, or should give, speech-power, a power in which most English people, young or old, are, on the whole, deficient. Bad enunciation and a poverty-stricken vocabulary are characteristics of the modern Englishmen, and the second of these is often regarded, strangely enough, as an excellence rather than a defect. “People train their children not to speak English beyond a thread-bare minimum; they resent it upon platform and in pulpit, and they avoid it in books. . . . The

child does not understand a thing fully, that therefore it is of no use to him” (C. 33). Pestalozzi's notion is that to possess skill in pronouncing words is itself an excellence—a form of power—even though the words convey no meaning. There is truth in this. Language exercises, *qua* exercises, have their place, like every other form of gymnastic; the danger is that we shall elevate such mere gymnastics into the supreme place. “We must clearly distinguish between these two objects: exercise in pronunciation and learning words as (intelligible) language; and practise the first by itself, independently of the second” (C. 105). Language drill, on phonetic lines, clearly commended itself to Pestalozzi.

* *Education as a Science*, p. 248.

common man does not know that his limited vocabulary limits his thoughts."*

In Pestalozzi's work of the year 1809 he shows how the teaching of language should commence with the mother. "Her teaching of language is always connected with lively action, which again is in connection with the objects, the names of which she pronounces to the child; she holds his hand away from the flames, when she says 'Fire burns'; she pulls him energetically away from the river bank, when she says, 'You might fall in and be drowned'" (P. 201). There is nothing here that strikes us as very novel, but the method is sound enough.

Pestalozzi did not confine himself to the mother tongue. Modern methods of teaching the spoken languages of Europe—methods represented by Dent's *First French Book* and a host of other works—were foreshadowed by him; nay, in one or two inspired moments he even thought of teaching the dead languages by these oral methods. As early as 1774, when instructing his son, he asked himself, "Since Nature gives us our first language, might she not give us ten others in the same way? I am beginning to see that I am not following her methods closely enough in teaching Latin; I must try to get into the way of always speaking it" (G. 44). At Yverdon German was taught to the French, and French to the Germans, along "modern" lines; and during a period of convalescence Pestalozzi tried the same method with Latin. Need I say that this method of "following Nature"—i.e., of imitating the way in which the mother-tongue is acquired—has a good deal of utility, and is justified by its success in the early stages of instruction; but the imitation must not be exact; systematic grammar *must* be introduced, though not at so early a stage as was customary with the older literary

* H. G. Wells, *Mankind in the Making*, pp. 133-5. Teachers should read every chapter of this book. Mr. Wells' protest against "plain English" will do them good. There is no virtue either in short words or in short sentences except where these are appropriately chosen.

methods. *Power* of speech is the thing to be aimed at primarily, not knowledge of grammatical laws;* but these two things are not wholly distinct; a certain knowledge of grammar conduces to power. Pestalozzi's appeal to "Nature" ("Nature in the first stages of the development of language in the race wholly and entirely ignores the complicated and artificial combinations of the complete grammar," C. 144) has the usual suggestiveness and the usual weakness of such appeals; "Nature"—the past development of the race—may give hints, but these hints may be judged by the human reason and placed in relation to human ideals.

Pestalozzi, during the last years of his life, began to see that the acquisition of foreign languages could not wholly follow the laws which operate in the acquisition of the vernacular. His success in language teaching other than the vernacular had been but moderate; one critic has declared his methods here to be "absolutely bad"; and he himself (P. 170) came to confess that "direct" methods (those that dispense with translation) were of doubtful utility. But the whole question is still under dispute.

Fröbel's contributions to the theory of language-teaching were not, I think, very great. He recognised in the child an innate impulse to use this, as well as other modes of expression, and what he says is wise enough, though not specially original. We should, he tells us, "connect words much more than we do, with real sight or touch of the things and objects signified" (S. F. I. 87). One profound remark of Fröbel's is that word and thing are at first undifferentiated by the child—they are regarded as indissoluble.

Another suggestion of Fröbel's was that short and intelligible religious sayings (prayers, texts, or hymns) should be "learnt by heart," a suggestion which, if abused in the

* Professor Findlay's *Principles of Class Teaching* brings out this important distinction well. Teachers should read the book; it represents a successful and recent attempt at pedagogical construction.

interests of dogmatic instruction, would be a gross violation of his system, but which is in perfect conformity with it if the "sayings" are of the right kind. The teacher is here simply helping the child to express himself; unless such expression is encouraged the corresponding feelings will, in accordance with Fröbel's oft reiterated conviction, die away for ever.

Like Pestalozzi, Fröbel laid stress upon simultaneous repetition of important statements, *e.g.*, those that sum up the arithmetical results attained by a class.

X.

TECHNICAL AND PHYSICAL TRAINING— DISCIPLINE, ETC.

PHYSICAL TRAINING (GYMNASTICS) AND MANUAL WORK, especially the latter, were prominent from the first in Pestalozzi's plans of reform.

Here a distinction must be drawn. We may advocate
Technical Manual Work on purely educational grounds—
Instruction. as a form of expression—or we may advocate
it on utilitarian grounds; a “trade” is useful.

Sir William Petty in England proposed as early as 1647 that “children should be taught as well to do something towards their living as to read and write,” and Locke, with, however, a different class of people in view, recommended Manual Work as a part of education.* Rousseau, who followed Locke on so many matters, followed him here, and he, in turn influenced Pestalozzi, whose early notion, put into practice at Neuhof, was to employ children on manual work and the “Three Rs,” the former for economic rather than educational reasons. Later at Yverdon he spoke of his “duty to fit children for their ultimate duties as quickly as possible” (G. 342), just as years before he had urged that the defect of ordinary institutions for the education of poor children was that children were not brought up consistently with the position they would probably have to fill in after life (G. 59).

* He also recommended “working schools” for the poor, quite in the spirit of Sir William Petty.

Another note is sometimes struck; "the education which fits a man for his profession and position in the state must be made subordinate to that which is necessary for his domestic happiness" (G. 77), but on the whole Pestalozzi recommended manual and workshop labour for its purely industrial value—its power of making the destitute able to support themselves—not for its educational value. Language and drawing, as means of expression and therefore of education, he fully recognised; but he does not seem to have altogether attained* the stand-point of Herbart and Fröbel, that "the hand has a place of honour beside language in elevating mankind above the brute."† Yet, although we must regard Fröbel and not Pestalozzi as the first to recognise clearly the educative or expressional value of manual work, Pestalozzi's proposals largely coincided in practice with those of his successor Fröbel; gardening is the most striking example. His pupils worked also at book-binding and cardboard work, and made geometrical models; earlier, during the Neuhof experiment, cotton spinning was favoured.

In the plan of an educational institute drawn up by Fröbel in 1829 we find not only gardening, but carpentering, weaving, and bookbinding proposed—the resemblance between his plans and Pestalozzi's being here striking. Towards the close of boyhood—that is, after the Kindergarten period proper—the boy should still work steadily at some material occupation; this even helps (says Fröbel) the book-studies over which we are so solicitous (S. F. I. 99). The dignity of labour was ever prominent in Fröbel's mind.

In these days when military drill, or Swedish drill, or other forms of systematic gymnastic are being pressed upon the

* I find one passage, however, worth quoting in this connection. Pestalozzi's helper Krüsi had "learned much and varied manual skill which in the lower ranks so often develop the basis of the higher mental culture" (C. 43).

† The words are Herbart's (*Lectures*, §259). I quote them in preference to words of Fröbel's, because, while the services of Fröbel in the cause of manual training are everywhere recognised, Herbart is too often regarded as educationally "bookish."

national attention, it is interesting to remember that Fröbel makes no suggestions in this direction. Possibly his feeling was that physical gymnastic (like mental gymnastic) loses much of its value when divorced from more living facts and pursuits; that just as arithmetic and grammar should keep in contact with the concrete and not be pursued wholly for their own sakes, so physical exercise when taking the form of "games" and "occupations" was far better than when pursued in a more formal and isolated way. Pestalozzi, however, had expressed himself in favour of a gradual series of gymnastic exercises (C. 178).

DISCIPLINE.—Pestalozzi never held the rosy official view that punishment could be almost dispensed with if only the teacher were efficient. He had seen enough signs of recalcitrancy with his own son to convince him that children have sometimes to be driven—perhaps even by blows—to do their duty.* In *Leonard and Gertrude* he goes so far as to say that "love is only efficacious in the education of men if it is associated with fear"—a statement I commend to Mr. Llewellyn Williams, the leading opponent of corporal punishment in Britain, whose statement that "where there is fear there cannot possibly be real respect" † conflicts both with the opinion of Pestalozzi and with known facts concerning Arnold of Rugby and Thring of Uppingham. As to Pestalozzi's own practice, we are told by some of his observers that he boxed boys' ears right and left (at Burgdorf); by others, that punishment was unknown. At Stanz he seems occasionally to have used a rope.

Fröbel has some wise words about attributing moral evil to children, and his whole system would tend greatly to reduce

* Possibly, had he ever clearly recognised, as the Herbartians recognise, that there are certain fairly well-defined laws of interest, his views might have been slightly, though not substantially modified.

† *Disciplinary, Civic, and Moral Education*, p. 30.

the number of faults due to mischievousness—itself largely due to want of healthy and congenial exercise. Punishment was rarely or not at all resorted to at Keilhau.

Fröbel warns parents—as Locke had done before—against paying much attention to a child's querulousness and despotism. If the child has all that it really needs, nothing further should be granted.

In the training of his son, Pestalozzi, here faithful to Rousseau, occasionally used the system of “natural punishments”—the “discipline of consequences.” But all wise parents use this to a limited extent; there are suggestions of it also in Fröbel.

Emulation, an agency very largely used by the Jesuit educators, was approved of by Pestalozzi in 1801 and condemned six years later on the ground that a child should learn to feel pleasure in the exercise of his own powers and the discovery of truth, rather than in comparison of himself with others.

PESTALOZZI'S PRACTICAL INVENTIVENESS.—In connection with the teaching of Reading, we saw that he invented the syllabic method, and he may be regarded, in fact, as the father

Pestalozzi's of all spelling-books that are in any sense
Resourcefulness. worthy of the name. He was likewise inventor of movable letters. He used a frame-work

with a groove above and below, into which a letter (a vowel in the first instance) was placed; consonants were then added before and behind. He was likewise, as we have seen, the introducer of slates and slate pencils into schools. Great was the advantage in the matter of cheapness which this invention involved; but disadvantages have shown themselves, and in these days of cheap paper the popularity of the slate is rapidly declining. The use of transparent horn for the purposes of comparing original figures with their copies was also due to him.

MONITORIAL SYSTEM.—The monitorial system of his contemporaries, Lancaster and Bell, was employed to a limited extent by Pestalozzi, especially (and of necessity) at Stanz.

Monitors. “My children were delighted when they knew something that they could teach others”

(G. 169). Something of the kind took place at Clendy, Pestalozzi's poor-school, in the neighbourhood of Yverdun, and also at Burgdorf; yet he said “God forbid” when someone suggested that he was inventor of the system of “mutual instruction.” The pupil-teacher system is the lineal descendant of the monitorial, and though not without its own absurdities and disadvantages, and confined to Britain, it seems likely to survive. Under wise guidance it may some day be claimed as an original and useful contribution made by Britain to educational organisation.

XI.

PSYCHOLOGY AND CHILD STUDY.

PSYCHOLOGY AND CHILD STUDY.—It would be folly to imagine that Pestalozzi possessed any very systematic views on psychology, though some of his admirers have tried hard to discover profundity amid his many obscurities.

Pestalozzi's Psychology. He had grasped a few truths with remarkable firmness—that all knowledge begins with *Anschauung* or Sense-Experience; that therefore the “elements” were of vast importance, later processes, like judgment and reasoning, being dependent on them* (“the time of learning is not the time of judging” P. 219), as also were the important intermediate processes of grouping, comparing, and contrasting.

He saw, too, that the first impressions of the child were more or less vague, and had to be rendered increasingly precise; “our knowledge proceeds from confusion to definiteness, from definiteness to clearness, from clearness to distinctness” (P. 207).

Now and then he approaches a view that is almost Herbartian; he speaks of “psycho-mechanical laws,” and we know how, one occasion, he assented to the proffered interpretation of his system that “it aimed at making education mechanical.” His exponent (G. 183) regards this as an

* Pestalozzi condemned “reasoning” with very young children, though he certainly reasoned with his pupils, after a fashion, at Stanz. Rousseau and Herbart also condemned the practice with the very young.

expression that does injustice to his views; and Pestalozzi subsequently preferred to say, "I want to psychologise education." But it really seems that a thoroughgoing mechanical determinism hovered at times before his consciousness; he wished to raise education to a "physical necessity." "Look to it that you, while striving to raise the results of art and of instruction to the level of a physical necessity, nevertheless give them, by means of rich variety and diversity of attraction and latitude of scope, the stamp of freedom and independence" (P. 205). The words seem to me full of significance; Pestalozzi was moving towards a view vastly different from the vague pantheism of his follower Fröbel, and far more in harmony with that of his other great disciple. He even dreams of a time when method may almost take the place of the teacher, and results will follow from causes with something like fatality (P. 224). Wordsworth said of Goethe's poetry that it was "not inevitable enough"; Pestalozzi seemed to be feeling, as Herbart came to feel, that unless something approaching a principle of "inevitableness" or determinism could be introduced into education, the work of educators must appear of somewhat dubious value. At any rate, *How Gertrude Teaches Her Children* is pervaded by a sense of the "physico-mechanical" nature of mental life, and we find confessions of a kind that must sound highly discordant to an idealist or a Fröbelian. "You are, as a physical living being, nothing but your five senses" (C. 86). "I say distinctly, the development of all human powers proceeds from an organism, the action of which is absolutely certain (though) I do not say that the laws of this organism are clearly known to me" (C. 165).

I do not suggest that these approaches to Herbartian psychology represent Pestalozzi's invariable view. They indicate, however, that he was less of a pantheist and mystic than his follower Fröbel.

Whatever their psychology, both Pestalozzi and Fröbel

were careful and sagacious students of child life. "The mere habit of carrying oneself well does much more for the educa-

Child Study. tion of the moral sentiments than any amount of teaching and lectures in which this simple fact is ignored" (G. 100). This remark, based on observation of a Stanz girl who had been "little better than a savage," will recall some of the characteristic teachings of Professor James as to the action of body upon mind, and, indeed, the entire James-Lange theory of emotions. It is of importance, too, in connection with the whole question of physical training. Here I quote it mainly as an example of Pestalozzi's power as an observer.

A volume could be written on Fröbel's power of observation; his whole system rests on a long-continued personal study of the tendencies which reveal themselves in the growing child. Examples might be detailed (*e.g.*, the boy who powdered his uncle's wig with plaster of Paris; and the others who threw stones quite innocently at a window) (S. F. I., 64), but there is scarcely need or space for them. Herbart was equally skilful as an observer of childhood.

XII.

THE INDIVIDUALITY OF THE CHILD.

THE principle of this notion is more Fröbelian than Pestalozzian, though we find traces of it in Pestalozzi, as when he urged that "men should be encouraged to learn by themselves and allowed to develop freely. It is in this way alone that the diversity of individual talent is produced and made evident" (G. 168).

**The Individuality
of the Pupil.**

Nay, he uses still stronger, and perhaps exaggerated, language. "The idiosyncracies of individuals are, in my opinion, the greatest blessing of human nature, and the one basis of its highest and most essential blessings; therefore they should be respected in the highest degree" (C. 6). Children, moreover, were encouraged to design symmetrical and graceful figures in the course of their drawing lessons.

In some of his earlier writings Pestalozzi practically rejected general educational theory altogether on the ground that it made no provision for the individual child. "All mere general rules on education which consider not a definite single individual, but the whole human race, easily lead astray" (P. 135). Yet a few years later, as we have seen, he was dreaming of a "method" that could be applied equally skilfully by "any teacher, good or bad" (see p. 85). Still later, he was urging that it was a mistake to suppose that a "general system of education tended to destroy individuality." "Its generality consists just simply in this, that it takes the individuality of each single child and cultivates it. The method does not

desire to develop anything that does not already exist as capacity in the child, and again develops this capacity simply out of itself and from its own centre" (P. 190).

On the whole, Pestalozzi's voice on this subject has the Fröbelian sound; but we must remember that both men were thinking, in large measure, of *home* education, not of education in large classes; the latter condition at once forbids any serious consideration of the pupil's individuality. Hence exhortations like those of Fröbel must, unfortunately, receive less obedience than they deserve. With classes numbering sixty, eighty, or a hundred, the process of "stamping our pupils like coins, letting them flourish with an image and superscription" (S. F. I. 94) not wholly their own, is inevitable. But perhaps the evil is not so great as Nature idolators imagine.

"SOFT PEDAGOGY" VERSUS "HARD PEDAGOGY."—One of the lines of present-day cleavage is between educators who lean towards "hard pedagogy" and those who lean, or are mistakenly supposed to lean, towards "soft pedagogy."

**Interest and
Self-Activity.**

To the latter group the Herbartians are said to belong because of their stress upon "Interest." In reality, the "Interest" of the Herbartians is a very strenuous thing, identical with a true "Self-activity"; but they are emphatic in their protests against a system of purely "formal" education—a system that keeps the pupil employed on abstractions and deprives him of the nourishment of facts.

I have thought it an interesting and useful task to study Pestalozzi from the above standpoint.

It was clear that he indulged in no weakly sentiment about boys, not even about his own much loved son. "I had decided that he should work (at learning to read) regularly every day, whether he liked it or not" (G. 41). The voice here is that of Mr. Benson; "a master's business is to see that there is mental effort." Yet gymnastics for their own sake did not often attract Pestalozzi; "to have a knowledge of

words with no distinct idea of the things they represent enormously increases the difficulty of getting at the truth" (G. 41). On the whole, these early expressions of Pestalozzi are distinctly in the direction of "hard pedagogy"; he lays stress upon the value of self-restraint, of doing disagreeable tasks, of learning the hard task of duty. Games to attract children to work never won his sympathy; work is work and play is play (P. 131, 158). All this is somewhat remarkable, as it was at this time that the influence of Rousseau was exerting itself, while Kant's name was still unknown. "Necessity, strict order, unvarying obedience to rules, should prevail in lesson hours" (P. 158). "We daily neglect more and more to teach our children (this) careful attention to what they are doing, (this) inexhaustible patience under the inevitable" (P. 138).

Evidently Pestalozzi had not arrived at the Herbartian standpoint of "interest"; he aimed at bringing into operation the "sheer dead lift of the will," and had not realized to what an extent the latter "faculty" was "rooted in the circle of thought." The Herbartian standpoint (often wrongly supposed to be a weakly and sentimental one) represents a great advance upon Pestalozzi's, which latter would too often result in long-continued drudgery with a non-nutritive curriculum. But conversely, knowledge, apperceptive interest, even virtue itself, may be paralysed and rendered ineffective if "power" has not been produced, if certain dexterities (perhaps of a mechanical type) have not been acquired, and a doggedness in undergoing occasional drudgery been created. "Perhaps the most fearful gift that a fiendish spirit has made to this age is knowledge without power of doing, and insight without that power of exertion or of overcoming that makes it possible and easy for our life to be in harmony with our inmost nature" (C. 173).

It is clear, however, from Pestalozzi's own experience, that keen interest of a sort can be aroused even in formal and

abstract studies *if the teacher has skill*. "Children of five and six years old joyfully spent hours together at exercises in number and form" (G. 340). But towards a second formal subject, grammar (vernacular or other), Pestalozzi had no inclination, and he regarded it as a subject almost incapable of awakening interest (P. 278). The truth is that very skilful teachers like Thring can make even grammar an interesting subject; the sense of mental effort is pleasurable;* but with the average teacher all formal subjects prove uninteresting unless they are kept in close connection with the concrete, *i.e.*, unless the formal subjects are not treated as quite purely formal. Pestalozzi was very explicit here, so far as the subject of Arithmetic was concerned, "the real relations of things lie at the bottom of all calculation" (C. 133).

INTELLECTUAL INDEPENDENCE.—Some points raised in the preceding sections may be considered here in another form. The exhortation "*Children should be taught to think for themselves*," passes for inspired educational wisdom at the present day; Mrs. Shelley's words already quoted (p. 14) may serve to suggest that there is another side to the question.

To "think for oneself" is a form of "power," not a sign of virtue. The clever forger "thinks for himself"—frequently with remarkable success. For schools to adopt this motto, except within strict limitations, would be wholly disastrous. When the mind has been fed and the affections engaged there is good reason for the child—or, rather, perhaps the youth—to be encouraged in a course of independent thinking; nay, even from the first a certain place may be assigned to this task; but there are higher tasks. To know something of "the best that has been thought and said in the world," to possess the germs of reverence for the good and great, are better things than this, though this is necessary too.

* As Bain says: "At the height of the mental plasticity, interest, although aiding, is not essential; the consciousness of power is enough to make it not a drudgery."—*Education as a Science*, p. 187.

How far did Pestalozzi give his sanction to this "heuristic" principle of encouraging children to "think for themselves"?

At Yverdon pupils were "made to invent geometry, the masters contenting themselves with pointing out the end to attain, and putting them on the road to it. Arithmetic was taught in the same way" (P. 73). This, of course, is legitimate enough; the chief value of mathematics lies in the mental training it affords; the only danger is the neglect of other things, and this danger was undoubtedly present in Pestalozzi's institutes, whose strong point was always mathematics. Again, "I held it to be extremely important that men should be encouraged to learn by themselves and allowed to develop freely" (G. 168). Children, he elsewhere tells us, should be led to possess the power of "helping themselves further on" in every branch of study (C. 71).

This is true, though only a half or a quarter-truth, and a natural corollary from the Pestalozzian principle of "individuality." There are dangers in encouraging a premature thoughtfulness and independence, and Pestalozzi knew this well. The receptive attitude has its place. "I felt it important to exercise the attention, observation, and memory first before calling into play the art of judging and reasoning," in order to prevent the up-growth of superficial, presumptuous, and false judgments (G. 167). Nay, "one should never reason with very young children" * (P. 216): "the time for learning is not the time of judging" (P. 219). On the other hand we find him affirming that "the child must first be taught to feel and to think, then to talk, and lastly to read and write" (P. 214); but "to think" must here merely mean "to possess ideas." The Socratic (and, I might surely add, any "heuristic") method is "impossible with children who lack at the same time the background of previously acquired knowledge and the outward instrument of the knowledge of language" (P. 155).

* Though, on Pestalozzi's own confession, he *did* reason with his children at Stanz, and "never forgot how strong and true he generally found their sense of justice and reason" (G. 102).

On the whole, I think Pestalozzi showed sound judgment in his remarks on this question. He saw that independent thought must necessarily (to be anything but mere presumption) be preceded by wide experience, though he was strangely disregarding, as we shall see, of the claims of "humanistic" teaching.

Fröbel's proposals, being strongly in the direction of encouraging "self-activity," were *ipso facto* in the direction of encouraging independent thought; and one of his expositors asks the question how far such an engagement may prove fatal to all reverence for authority (S. F. II., p. 19-20). The child had to "do, observe, and test for itself" (S. F. II. 104); and its questions had to be respected (S. F. I. 44). There is danger in such advice if it stood alone, but fortunately Fröbel, unlike Pestalozzi, saw the *other* needs of the child—the need, for example, to be fed on humanistic material; thus the tendency of his teaching is not in the direction of creating or calling forth mere mental "power," but of placing this power at the service of character. He also urges, like Pestalozzi, that reasoning power on the part of a child is a late product, and needs to be preceded by development of observation, memory, and imagination.

CONCENTRATION AND CORRELATION OF STUDIES.—The Herbartians have laid great stress upon the necessity of so co-ordinating subjects that one may help another (geography help history, for example) and thus a sense of the ultimate unity of all knowledge be acquired. There are excellent practical reasons for aiming at this. Isolated knowledge is uninteresting ("apperception" cannot take place); it is, moreover, incapable of being retained in the memory; there is thus a great waste of effort if the one subject does not help another to be acquired and retained, and the evils of a crowded curriculum are in this way doubled. Some Herbartians have even gone so far as to choose one definite group of subjects to

**Co-ordination
and Continuity.**

form the "centre" of the curriculum, all others being tacked on to this.

The problem of the concentration and correlation of subjects is a prominent one at present and there are thus good reasons for investigating the views of Pestalozzi and Fröbel with regard to it.

The former laid stress upon connecting school work with home work—upon using the ideas received at home as starting points for the acquisition of further knowledge (P. 147). Moreover, he connected geography with natural history, agriculture, local geology, and the like (G. 414). It is clear that Pestalozzi had no sympathy with drawing hard and fast lines between subjects, and we know that, in point of fact, he never thought of using a time-table (G. 138, 180). He had a notion, too, of allowing children to work and learn at the same time—not to learn by working, in Fröbel's sense, but to carry on two things simultaneously—a manual and an intellectual pursuit. The soundness of this proposal is very doubtful, and it is not adduced here as a real contribution to the "correlation" of subjects. Pestalozzi points out that the handicraft (*e.g.* spinning) must first be perfectly acquired, and be thus a matter of mere routine, if an intellectual pursuit like arithmetic is to be carried on at the same time. This, of course, is obvious.

The principle of correlation is much more noticeable in Fröbel than in his predecessor. To imagine that language, religion, and the study of nature (including mathematics) can exist each in isolation is, he tells us, a "delusion" (S. F. I. 86). Mathematics must help the study of nature; language likewise; all knowledge must be in living connection; in fact, "connectedness" is given by Fröbel's English exponent, along with "self-activity" and "continuity," as the essential elements in his system (F. 54). The childish songs he recommends are to "connect" themselves with life and action; subjects that are unconnected (like "spelling" in the school which Fröbel

attended when a boy) "hang loosely in the air" and are in danger of being lost; rigid separation into subjects is a late and artificial thing in racial and educational progress.

For us moderns the main lesson to learn is to move from the concrete to the abstract, and to base the formal on the real. Let composition themes be set on the history or geography already studied, not on isolated subjects; use history, geography, science, and the like for exercises in arithmetic (questions can easily be framed on the depth of Lake Baikal relative to the sea level, the average length of reign of English kings, and the like); in studying history let the pupils (aye, and the pupil-teachers too) read *aloud*, and thus acquire knowledge and skill simultaneously; study history with a map; and so on. Fröbel's stories were more than stories; they were centres; drawings, concrete objects, singing games, speech—all came into connection with them and followed their lead. The Herbartians have pointed out the enhanced interest which springs forth when one subject is made to help another, and have urged the necessity for concentration on moral grounds also; Fröbel was quite as emphatic.

In the Fröbelian system is there (as in certain forms of Herbartianism) a *central subject*? If there is one at all, it is Nature Study; but though such a study must ever form an integral part of any modern curriculum, to give it such importance as this is a mistake, and I must therefore take exception to Mr. Bowen's remarks on this question (F. 175-6).

PARALLELISM BETWEEN PESTALOZZI AND FRÖBEL.—In the following, and doubtless in other and unmentioned matters, we see how closely akin is the thought of Fröbel to that of Pestalozzi:—

**Pestalozzi
and Fröbel
Compared.**

(1) Their vague pantheistic views concerning "the divine in man"; Pestalozzi, however, wavered a good deal in his belief.

(2) The view—especially prominent in Fröbel—that teaching should aim mainly at letting the divine germs in man grow

freely and spontaneously, and should not pursue a course prescribed by artificial or conventional demands. The plant analogy comes in here. This doctrine is open to misconception, and though perhaps true metaphysically, is, Herbartians believe, of only limited value educationally.

(3) In connection with this view is the stress on stages of development, each of which must be successively passed through by the child if injury is not to arise. Premature manliness (bookishness, etc.) is fatal to *true* manliness. This was Rousseau's most valuable message; Pestalozzi and Fröbel were right in following it. [At the same time an *ideal* is needed which this doctrine, in itself, does not supply.]

(4) Stress upon manual and expressional work of various kinds, weaving, gardening, modelling, bookbinding, drawing, and the like. Pestalozzi recognised, like Fröbel after him, "the child's love of imitation" (G. 42).

(5) Insistence upon mathematics and upon Nature Study and geography.

(6) The use of the various objects in the room and neighbourhood for conversational purposes, and thus for the production of language-power. "Are the table and chair in the same relation or connection with the room, as window and door?" (Fröbel) Compare this with Pestalozzi's method, p. 74.

(7) Stress on home education, and on basing school education on home and environment.

(8) Fröbel shows a decided advance on Pestalozzi in his treatment of "humanistic" subjects. Unlike his predecessor, he saw the need of these with very great clearness; stories, literature, history were far from being despised, as they would almost appear to have been by Pestalozzi.

XIII.

WEAKNESSES OF PESTALOZZI AND FRÖBEL.

BOTH Pestalozzi and Fröbel use fatally vague language in describing or prescribing the aim of education. In this respect they seem to me far inferior to Herbart, who boldly

**The Fundamental
Weakness.**

places character-forming before the educator as the only aim that will give consistency and harmony to his work; "the one and the sole aim of education may be summed up in the concept—morality":* everything that followed was to be "deduced" from that aim.† This standpoint preserved Herbart from constantly deifying "Nature." Man has to judge Nature, not to follow her blindly; to use her for his higher purposes, but not to be tied down to her often *non-moral* methods. The child comes into the world endowed with various innate tendencies, some good, some dangerous; unless we possess a standard for the criticism of these tendencies we must fall back upon the Rousseau policy—the wildest policy ever sketched by a writer on education—of leaving the child practically alone and letting his impulses work out unchecked.

Now and then, but rarely, Pestalozzi comes close to the Herbartian standpoint. The most significant passage is towards the end of *How Gertrude Teaches Her Children*. "What a

* Opening words of the *Allgemeine Pädagogik*.

† The title of his book is "General Pedagogy deduced from the aim of Education." People who imagine that Herbart is less "teleological" than Pestalozzi and Fröbel seem to overlook this central fact; he is *more* so.

task! To bring the sense-means of facilitating the virtuous and wise disposition of mind, into the blood and veins, before the hot desires for sensual pleasures have so infected blood and veins as to make virtue and wisdom impossible." (C. 181). Elsewhere "manliness of life" is mentioned as one of the goals of the educator (C. 157), and yet again "inner content" (C. 199). But generally his language is vague. The aim of education can be "no other than the harmonious development of the powers and faculties of human nature" (P. 125). So in 1801. But in 1782 "to live, to be happy in his state of life, and to become a useful member of society is the destiny of man and the aim of education" (P. 126); or, in yet another form, the essence of all the aims of education is "to fix the child's attention, to sharpen and exercise his faculty of judgment, and to lift up his heart to noble sentiments" (P. 136). Elsewhere his expositor regards morality as being on Pestalozzi's view, the aim of education (P. 145), but I can find no indications—except vaguely in one or two of those already quoted—that this was the case. The first of the above ("harmonious development") seems the view most consistent with the reformer's general foggy attitude of mind; it is taken from his most important work, *How Gertrude Teaches Her Children*. In itself it is enough to show that his ideas badly needed clarifying, and that, in the words of Bonstetten, who visited him at Burgdorf, "a new storey" needed to be added to Pestalozzi's building.

But, so far as clearness of view upon this question of educational aim is concerned, I cannot find that Fröbel added the much-needed "storey." I find the old fog, the old Rousseau illusions. Man has to "fulfil his destiny and vocations, which is the representation (or outer active manifestation) of the Divine nature within him" (F. 178). "Education should lead man to clearness concerning himself and in himself, to peace with nature and to union with God" (F. 95); to which and similar statements Fröbel's exponent

adds that the point of view here expounded is "not perhaps very helpful to the teacher." Better is the statement near the commencement of the *Education of Man*, "the aim of education is to produce a pure, faithful, complete, and therefore holy life" (S. F. I. 2); but later on we learn that such "production" is scarcely necessary, for the goal of education is to realise the Divine that is already *in* man through man's life, with freedom and self-determination (S. F. I. 7).

It is important to get rid of this mysticism, or at least to relegate it to the region of pious opinions. No Herbartian educationalist is so foolish as to bring his master's shadowy "monads" on the scene when the practical tasks of education are under discussion, and Fröbel's pantheism is equally distracting. Wordsworth and Fröbel discovered in "Nature" all kinds of things which the rest of us do not discover; and they likewise discerned in the new-born baby more notable signs of "the divine" than have yet revealed themselves to our uninitiated gaze. We see more of the "divine" in Isaiah's prophecies and Plato's *Republic* and More's *Utopia* than in all the babies and butterflies that have ever squalled or fluttered. We see the need—confirmed by experience of every child that has been left to develop its own "divine" nature without external aid—of an education that is very much "prescribing, determining, interfering," though we fully and enthusiastically admit that Fröbel has done priceless service in warning us against the dangers of such a method. Education, he tells us, must be from the first "passive, observant, protective." "Yes," we answer, "provided we once know what the aim of education itself is to be; knowing *that*, we will always be 'observant' and 'protective,' sometimes even 'passive,' but more often we shall feel obliged to be very 'prescribing, determining, and interfering' indeed"—as Fröbel himself was

To put the case in a nutshell. We aim at making good men out of our scholars; we refuse to discuss whether, when

born, those scholars possess a divine nature or not; some thinkers have thought they do, others have been convinced that the chief inborn characteristics of the human babe are either neutral or diabolical. We refuse to talk about "harmonious development of powers and faculties" because some "powers" and "faculties" may need to be checked and starved, not developed. Nay, we find Pestalozzi in *Leonard and Gertrude*, doubling back upon his own and Rousseau's conception of the divine "natural" man and saying that we must aim at making man "something quite different to what he naturally is;" we have to "transform the natural man" (P. 122). Yet in 1809, eight years later, "the nature of man is of God; it is a God-like nature" (P. 256). Nay, true educational method "never goes against nature but is always (!) in harmony with her" (P. 181). No wonder that Mr. Wells says of Pestalozzi's theories that "the fog never lifts." We refuse, then, to talk about "destinies," and "vocations," and "self-realisations," because such words, when applied to many of our pupils—starved physically, mentally and morally—seem loose and exaggerated. We prefer to use the common language of every-day life, and say that we aim to make our pupils, so far as is in our power, into good men; the goal of education is "character-forming."

Then, working backward from this standpoint, we discover all kinds of educational laws pointing out the way to this goal, many of them first established by Fröbel, others, in the main, for the more advanced stages of instruction, by Herbart. We discover that heroic historical narratives help to form character—so we include them in our scheme. We discover that an interest in geography and Nature Study keeps from evil—so we seek to awaken that interest. Investigating the origin of interest in general, we find that it is sometimes dependent on apperception (as Herbart showed) and is therefore ruined by a curriculum that is too "formal"; sometimes dependent on an innate outward-

going, constructive impulse, as Fröbel showed.* Thus gradually we work out our educational plan, selecting or rejecting in accordance with an ideal which, though not free from obscurity, is far more definite in its outlines than the ideals commonly put forward in the names of Pestalozzi and Fröbel, and presenting a bold front towards a sordid commercial utilitarianism on the one side and a stilted theological obscurantism on the other.

Pestalozzi himself recognised the moral implications of education. He had seen, his expositor tells us, that evil cannot be cured either by charity, legislation, or preaching. Education seemed to him the only effective remedy, but he saw that an education was wanted which, based upon the child's daily life, should set in action all the powers for good contained in germ in his nature, and keep him continually employed (G. 95). Fröbel speaks in a similar strain. He looked upon "the cultivation of the creative powers as most important in overcoming coarseness and immorality, or rather in preventing their development" (B. 85). Then why not simplify and clarify by frankly avowing that the aim of education is "character-forming"?

A short preliminary discussion will pave the way to a consideration of another weakness in Pestalozzi's system.

Some subjects are (1) nutritive, others are (2) expressional or (3) gymnastic. Drawing, writing, clay modelling and the like are forms of expression; arithmetic and grammar are forms of mental gymnastic. Both (2) and (3) pre-suppose that the mind is well supplied with mental nutriment—with ideas or images. In other words, the receptive side of education must not be neglected, and much of the present-day talk about "making boys think for themselves" and "arousing mental effort"

* Herbartian and Fröbelian interests are not so distinct as the above may suggest; each is, in a sense, outward-going, creative, constructive. But Herbartian interest presupposes a larger accumulation of experiences than Fröbelian—the latter is the more primitive and simple.

will prove pernicious unless due provision is made for giving mental nutriment. We do not expect an athlete to perform wonders if he is starving, and we cannot expect children to show independent mental effort along heuristic or expressional lines if their minds are vacant. This is the meaning of Sir Oliver Lodge's retort^{*} to Mr. Benson; "A master's business," said the latter, "is to see that there is mental effort"; "No," said Sir Oliver, "a master's business (his primary business, at any rate) is to provide proper pabulum." This, too, is the meaning of the Herbartian attack upon a purely formal and gymnastic curriculum. Mental nutriment is as much a necessity as mental exercise; in fact, it is a more primary necessity, for the latter pre-supposes it. Interest, too, as all the Herbartians urge, is dependent (largely at least) upon the presence of already accumulated stores of ideas. One of the chief faults of the curriculum previous to the time of Comenius was that it was purely formal; affording, no doubt, splendid scope for mental dexterity, but failing to feed the mind; "the intellect was scarcely ever nourished by actual facts."^{*}

The mind, then, must be fed. But what is its "proper pabulum"? It is of two kinds—ideas about Nature and ideas about Man.

Pestalozzi scarcely neglected "Nature Study" and kindred subjects, though some critics condemn him for regarding them mainly as a basis for language-instruction. But when we ask what he did for the other great department of "realistic" study[†]—the study of man in history and literature—the answer will certainly have to be wholly unsatisfactory. Pestalozzi did nothing whatever for "humanistic" teaching; history is only occasionally mentioned in connection with his

^{*} The words are those of Dr. Laurie, whose works seem to me to represent the highest constructive level hitherto reached by a British educationalist. The question just discussed is a touch-stone.

[†] "Realism" is a term generally applied to the study of physical nature. But Dr. Laurie has rightly urged that "the most real of all things are the thoughts of man"; "humanism" is the highest kind of "realism."

various institutes; literature, I think, not once. He never realised, with Matthew Arnold, that the most valuable gift which education can bestow is an acquaintance with "the best that has been thought and said in the world"; with Edward Thring, that one of the teacher's tasks (and probably the most important) is to "open fairyland"; with Dr. Laurie that "if we wish to train a boy in the true, or the good, or the beautiful . . . there is no way but by introducing him to the utterances of the wise and good. Through the perusal of literature alone can man enter into possession of the hard won victories of the past, and make himself the fellow and companion of the greatest and noblest of his race." In fact, his occasional references to narrative material—so attractive to children—are hostile; "the best story, the most touching picture, in a book is for the child, as it were, a vision in a dream, without connection, without harmony or inner truth" (P. 137), a statement which, coming from so great a man as Pestalozzi, is astounding.

The reason for this neglect was, of course, the influence of Rousseau, and the revolt, led by him, against the "bookishness" of the Renaissance. Yet Pestalozzi himself, though he boasted, when an old man, of not having read a book for forty years, had been blessed in childhood, like so many boys (Dickens among them) have been blessed, by being fed on imaginative material; "he turned the tales over and over in his mind, putting himself in the place of his heroes" (G. 4). But we cannot discover that such tales had any prominent place in his institutions. Even the Bible seems not to have been taught by Pestalozzi himself, though his able supporter Neiderer gave lessons in it. On the whole, I am not surprised at the complaints of the straiter sect—devoted to the Heidelberg Catechism—against Pestalozzi's methods; on the humanistic side they were utterly unsatisfactory, despite the occasional references in his printed works to the "divine element of Christianity" as the "most perfect means of elevating the morality of the race."

That he should regard systematic history as a difficult subject to teach to the young—to teach, at any rate, in a scientific way, with exact analysis of characters and causes—is not surprising; other have felt that the judgment of the young is scarcely mature enough for dealing with so high a subject. But biographies and stirring stories, Biblical and others, preceded by fairy tales and the like, are really essential to education—they cannot be dispensed with except at gravest peril to the moral and spiritual life of the young; in the language of the Herbartians, they form, with literature, the material for *Gesinnungs unterricht* or “Character-forming Instruction.” Pestalozzi, in some of his books, says a great deal about “love and faith” being the roots of moral life (elsewhere, “love and gratitude”), but I cannot find that he or his institutions added anything to the theory of moral or religious instruction beyond a much-needed protest against dogmatics.

This, then, must ever be regarded as a serious blemish on Pestalozzi’s work. Reverting to the terminology at the commencement of this section, we might say that he never fully realised the necessity for mental “pabulum”—for “nutritive” subjects.* His strong point was with the “expressional” and “gymnastic” subjects; in Thring’s terminology—the cultivation of “power.” But “power” is not everything—only, indeed, when possessed by “good” men is it anything but a curse; hence the urgent need of “character-forming,” “culture-giving,” or “humanistic” subjects, which alone make men morally sensitive or apperceptive of moral truth. Modern educators, with few exceptions, have failed to balance the claims of “culture” and “power,” and yet the final test of the highest educational greatness is, perhaps, just this power of balance. Pestalozzi never possessed it; Herbart and Fröbel in Germany, Laurie in Scotland, and a few other

* A similar charge has been brought (see Bowen) against Fröbel. He is accused of “despising knowledge and thinking only of training” (p. 112). There is some not much—truth in this.

men—a *very* few—have possessed it. Most of the present-day “reformers” have not even dreamed that the real problem of the age is to reconcile the claims of culture and character subjects with gymnastic and power subjects.

I say that Pestalozzi here falls short. Read, for example, one of his many summaries of the task set before the educator—a summary almost wholly in terms of “power.” “The child must be taught to reflect, so that he may be open; prudent, so that he may not be compelled to be mistrustful; industrious, so that he may not become a beggar; sincere, that he may inspire confidence; reasonable, so that he may have confidence in himself. In short, he must be so brought up that he will be *something* wherever he may be” (P. 123). Pestalozzi scarcely ever suggests that the child should be so trained as to feel the thrill of noble emotion; he must be “something,” he must be “efficient,” he must have “power”—that is all.

Fröbel was wiser. In *his* system stories, legends—subsequently history and literature—would have an honoured place.

Another criticism of Pestalozzi comes from the Fröbelians. While admitting with gratitude Pestalozzi’s services, they claim that there are vague sensations and emotions stirring previous to the stage of definite Anschauung. In fact, Pestalozzi, though the father of the modern elementary school, is not the father of the infant school—an honour reserved for Fröbel. The criticism is sound, but of no great importance; Pestalozzi could not do everything.

Another fault, or possible fault, in Pestalozzi is that in his laudable desire to build up the mental life from its simple elements he carried his analysis too far. “He refines too much.”* It is not always true that what is the simplest is the most understandable. To say that “words must be separately clear to the child before they can be made clear to

* Compayré, *History of Pedagogy*, p. 441.

him when joined together" (C. 111) (Bowen, 56) is to use very doubtful language. The same objection has been brought against Fröbel; "he seems now and then to be premature in his insistence on the use of elements," more especially in drawing. The mind's procedure is naturally analytical—proceeding from the whole to its parts, from a vague totality to definiteness. Fröbel, like Pestalozzi, attempted to *build up* from logical elements—their procedure was *synthetical*, not analytical—with the result that, to this extent, they followed an "unnatural" and *unpsychological* procedure. Do the regular solids really form suitable starting points for education?

Again, Pestalozzi may have carried measurement to excess, and have thus checked real artistic power and the sense of form. This objection may be amplified into a wider one; Pestalozzi laid exaggerated stress on mathematics, and inadequate stress on subjects that exert a more vague but equally or far more important influence. This was the objection put forward by Father Girard, himself an educator of high repute. "I made the remark to my old friend Pestalozzi that mathematics exercised an unjustifiable sway in his establishment. . . . Whereupon he replied: 'This is because I wish my children to believe nothing which cannot be demonstrated as clearly to them as that two and two make four.' My reply was: 'In that case, if I had thirty sons I would not entrust one of them to you.'" The father was right. Pestalozzi, as already indicated at some length, was fundamentally neglectful towards humanistic subjects.

The use of language exercises which conveyed little or no meaning and were useful only as verbal gymnastic, may have been illegitimate, and was certainly a violation of the Anschauung principle. But possibly the violation was justifiable. Some of his syllabic exercises resulted in sounds *wholly without meaning* (nito, toin, into, onit, etc. formed from OTIN); and some of the definitions learnt by heart were possibly premature. Pestalozzi had more faith in the

mechanical than many people suppose, and, indeed, the mechanical has an important place in the practice of expression.

Pestalozzi thought that the child's early lessons in Anschauung might well be based on observation of its own body. This was certainly an application of the principle "From near to distant," but there is reason to doubt whether it is a wise application of the principle, for the child is naturally more observant of outer things than of his own form.

Moreover Pestalozzi's exercises were over-laboured; "the ten fingers of my two hands have twenty-eight joints, ten at the top, etc., etc." "Pestalozzi," said a critic, "takes a world of trouble to teach a child that his nose is in the middle of his face." Still, Pestalozzi's stress on *expression in words* is good, even though the prescribed exercises were not of the best kind.

On matters of personal detail no man was more open to criticism than Pestalozzi, but the task would be superfluous; it has been done so often. His bawling; his excessive reliance upon simultaneous answering; his attempts to teach two subjects at the same time (an oral and a manual one); his utter lack of system as to length of lesson and the like (H. M. I. would be horror-stricken at his contempt for time-tables); nay, the general absence of law and order in his institutions—these and many other features of his work might be mentioned as decided weaknesses.

Pestalozzi's followers have often made mistakes for which we cannot hold him personally responsible. Among these mistakes one may be specially mentioned:—

So great a fidelity to the Anschauung doctrine that the child's power of abstract thought is positively retarded. "When you wish to learn geography," said a Russian lady to her little son, "the servants will take you where you wish to go."*

Dr. Stanley Hall recognises the same danger as that here referred to, and speaks of the "low-ranged mentation that

* Miss McMillan's *Education Through the Imagination* (p. 8).

hovers near the coast-line of matter, and cannot launch out with zest into the open sea of thoughts.”*

“In modern pedagogy there is an increased tyranny of things, a growing neglect or exclusion of all that is unseen.”†

Mr. Graham Wallas brings the same objection against the Fröbelians.

Among Fröbel's special weaknesses may be mentioned:—

A foolish symbolism read into crystals, plants, and flowers; excessive stress on the elements (see pp. 104, 105).

Mr. Courthorpe Bowen has criticised several of Fröbel's songs; some on the ground that they deal too largely with the senses of taste and smell—which are comparatively unimportant educationally; others on the ground that they seem to encourage a childish dread of darkness; others on the ground that they hold up certain wild animals to reprobation; others, yet again, on the ground of the far-fetched nature of the allegory connected with the song; others on the general ground of small poetical merit.

Again, Fröbel's songs, says Mr. Bowen, are not arranged in any definite sequence: “in one song the baby is in arms; in the next he is some four or five years old; and then back we come again to the age of two.” Considering the stress laid by Fröbel on the principle of gradual development, this fault is somewhat surprising. Mr. Graham Wallas has also criticised some of the songs as silly.

Other criticisms are that kindergarten methods, being highly expressional, may *over-stimulate* the “motor” child (Baldwin); that Fröbelians have carried too far their contempt for books, and therefore postpone too long the teaching of reading and writing (Graham Wallas); that they underestimate the importance of cultivating habits of severe attention (Graham Wallas; Pestalozzi, as we saw, did *not* neglect this); that they lengthen out too greatly the early stages of development, and thus fail to introduce the child to

* *Adolescence*, II. p. 465.

† *Ibid.*, II. 463.

the hard thinking required for the battle of life; that the proven type of Fröbelian teacher transforms children into superficial puppets, devoid of originality, and dependent on others for work and amusement; that Kindergarten children are over-inquisitive—too fond (!) of asking questions.

Some of these objections are of dubious validity, and the last is really a compliment to Fröbel's methods. It is only right to point out that Fröbel devoted fifty pages to considering how "Lina" should be taught to read and write; she is six years of age, and has just left the Kindergarten.

The two following objections may be proffered for what they are worth:—

That Fröbel scarcely ever mentions Zucht (Discipline) or Gehorsamkeit (Obedience).—MRS. MONTEFIORE.

That possibly, in view of Dr. Stanley Hall's work on *Adolescence*, the very early stages of the child's life may not be so overwhelmingly important as Fröbel imagines; and that the adolescent years (to which the Herbartian doctrines are even more applicable than to the earlier ones) may represent a veritable 'new birth' almost as important as the original birth.—HAYWARD.

APPENDIX I.



WORDSWORTH, FRÖBEL, AND THE MODERN DOCTRINE OF EVOLUTION.

I HAVE thought it well to give a more detailed discussion of the question considered on pp. 24-36. To insert it in the main body of the text would be to violate every principle of proportion, and would distract attention from the concrete achievements of Pestalozzi and Fröbel; but some such discussion seems urgently needed in view of the "Nature" moonshine so often identified with the name of the second of these educators.

A convenient starting-point will be Wordsworth's *Ode on Intimations of Immortality from Recollections of Early Childhood*—probably his greatest poem, and certainly a poem that reflects very accurately the spirit of Fröbel's teaching.

From this Ode we learn that in his childhood,

"Meadow, grove, and stream,
The earth, and every common sight"

appeared to the poet as

"Apparelled in celestial light,
The glory and the freshness of a dream."

There was still for his adult vision a beauty in the rainbow, the rose, the moon, and the sea, but the richer beauty of his earlier days had vanished. He is constrained to ask

"Whither is fled the visionary gleam?"

Where is it now, the glory and the dream?"

and he infers, with Plato, that the child comes into the world out of a previous state of existence, and brings golden memories

of this state that give a supernatural glow to all objects of Nature. Gradually these memories fade away as the child grows older :

" Our birth is but a sleep and a forgetting :
The Soul that rises with us, our Life's Star,
Hath had elsewhere its setting,
And cometh from afar."

The real seer, the truest philosopher, an

" Eye among the blind,"

capable of reading the secrets of eternity in a more immediate and intuitive manner than we adults ("in darkness lost, the darkness of the grave,") is thus—the little child !

Vague feelings and instincts may still persist into adult life, and are to be cherished as residua of the vanishing divinity of childhood.

" In a season of calm weather,
Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the children sport upon the shore,
And hear the mighty waters rolling evermore."

This feeling, Wordsworth tells us, can best be awakened by contact with "Nature." We can far better "feed this mind of ours in a wise passiveness" than by the study of the thoughts of "dead men." As he says in another characteristic poem :—

" One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can."

Nay, one moment of such communion with "Nature" can teach us more than "fifty years of reason"; and the poet, bidding us "close up the barren leaves" of books, assures us that there has been

" Enough of Science and of Art."

One is reminded of the mournful protest of Keats in *Lamia*:

“Do not all charms fly
At the mere touch of cold philosophy?
There was an awful rainbow once in heaven:
We know her woof, her texture; she is given
In the dull catalogue of common things.
Philosophy will clip an Angel’s wings,
Conquer all mysteries by rule and line,
Empty the haunted air, and gnoméd mine.”

These quotations might at first sight appear to be enough in themselves without criticism or comment to demonstrate how hopelessly out of touch with the highest aspirations of mankind were these two great poets. The climax was reached when Keats proposed “confusion to Newton” for having explored the mystery of light. It would seriously seem as if these men, inspired, consciously or unconsciously, by the Rousseau rhodomontade against civilisation, would shut up Newton, banish science, and prevent the publication of books—their own, perhaps, excepted.

But, to speak plainly, we cannot take either of these poets seriously when they sing in this vein. The light that they throw over “Nature” is the light of their own imagination, “The light that never was on sea or land.” In other words, they see things in physical nature which do not exist in it; they idealise the objects they contemplate. Wordsworth, as already pointed out, imagines that the Robin pursuing a Butterfly is suffering from some “ailment”:

“What ailed thee, Robin, that thou could’st pursue
A beautiful creature
That is gentle by nature?
Beneath the summer sky
From flower to flower let him fly;
’Tis all that he wishes to do.”

This is enough to show how one-sided was Wordsworth’s view

But he sometimes realised that *human* "nature" was at least as high as physical "nature."

"The moving accident is not my trade;
To freeze the blood I have no ready arts:
'Tis my delight, alone in summer shade,
To pipe a simple song for thinking hearts."

And he is not unmoved at the remembrance of

"The antechapel, where the statue stood,
Of Newton, with his prism and silent face,
The marble index of a mind for ever
Voyaging through strange seas of thought, alone."

Nor, as his great patriotic sonnets show, was he always absorbed in a mooning contemplation of the physical universe, to a neglect of the great world of human thought, effort, and society.

So also with Keats. "Scenery is fine," he said, "but human nature is finer." "I never felt so near the glory of patriotism, the glory of making, by any means, a country happier. This is what I like better than scenery." And in noble words which demonstrated how he had departed from his early and crude ideal of a "life of sensations"—the "wise passiveness" of Wordsworth—he announced his resolution of devoting himself to a life of "application, study, and thought." Books did not appear to *him* as wholly "barren"; and "Nature" began to appear in her true colours—not as a wholly benevolent or ideal being. He was not unmindful of

"The Shark at savage prey—the Hawk at pounce—
The gentle Robin, like a Pard or Ounce,
Ravening a worm."

In passing, I would call attention to the fact that the Robin Redbreast unintentionally gave a shock both to Wordsworth and to Keats. But why a shock? Merely because each had filled his head with notions about "Nature" which were inconsistent with facts.

My chief complaint against Fröbelians is that they still persist in using the Wordsworthian formulæ about Nature without realising—or, at any rate, clearly pointing out—how partial and one-sided those formulæ are. Fröbel and Wordsworth were contemporaries, and used much the same pantheistic language; and Fröbel, like Wordsworth, inclined to the doctrine of reminiscence. The logical outcome of this standpoint is to neglect the progress of the race, the achievements of great men in literature and science; to look backwards rather than forwards. Fröbelians are frequently charged with a neglect of the Humanities (literature) and with postponing too long the teaching of reading, writing, and other necessary arts of civilisation. Such charges are not wholly just, when all circumstances are taken into account, but they serve to point out where the dangers of the system lie; and these dangers seem to spring partly from false or one-sided views regarding "Nature." Man must look forward; must build for himself an

"isle of bliss

Midmost the beating of the steely sea"; *

must remember that "Nature," as Mr. Meredith says, is, in large measure, "heathenish"; and while not subscribing to Mr. Hardy's pessimism, must learn, with him, to "uncover the defects of natural laws, and see the quandary that man is in by their operation"; in short, must seek to go beyond, and improve upon, "Nature."

But, as already pointed out, there is another meaning of "Nature" in Fröbelian works. The *child's* "Nature" has to be considered. Here comes in the most valuable contribution of Fröbel (and, indeed, of Rousseau also) to educational thought. "Education is always beset with the danger of interfering with ancestral and congenital tendencies," * and it was against this danger that Fröbel protested so earnestly.

* William Morris.

† *Adolescence*, Dr. Stanley Hall, I, 406.

The parent and teacher should study the child's spontaneous development; adapt modes of instruction—so far as advisable—to this; and not prematurely force the child into grooves only suitable for maturity. Fröbel's advice is here sound, but *utterly insufficient in itself*, needing to be supplemented by the Herbartian principle that the end or goal of education (which was only vaguely defined by Fröbel himself) is no other than character-forming. Once the teacher has grasped this last principle firmly (Dr. Stanley Hall expresses it in the words, "Educators must face the fact that the ultimate verdict concerning the utility of the school will be determined by its moral efficiency in saving children from personal vice and crime" *), and has realised all its implications (*e.g.*, the relation of Interest to Character, of Instruction and Apperception to Interest, of "Real" Studies to "Formal" Studies and the like), he may then, perhaps, throw over Herbart and take Fröbel and modern Fröbelians as his guides, learning from them of the stages through which the child tends normally to pass, and making use, so far as is wise and advisable, of the impulses that spring up at each stage.

One of these impulses is in the direction of "Nature Study." The child, as Wordsworth truly sets forth in his great Ode, sees a glory and attractiveness in the things of the physical universe, and the question then arises for the educator, "Am I to allow the child to gratify this impulse?" Fröbelians seem to forget that some of the up-welling impulses of childhood are far from divine or salutary; that "the passion for burning things is universal in infants"; † that Lombroso has even gone so far as to say that normal children pass through stages of "passionate cruelty, laziness, lying, and thievery"; ‡ and that Yoder, in like manner, claims that "a period of semi-criminality is normal for all healthy boys." § Facts of this sort, so ignored by the more airy of the Fröbelian optimists,

* *Ibid.*, I., 409.

† *Ibid.*, II

‡ *Ibid.*, I., 3

§ *Ibid.*, I., 401.

point to an obvious moral; while we should reverently *study* the unfolding impulses of the child, we should adopt a free and critical attitude towards those impulses; not regard them as all equally sacred and sanatory, or necessarily sanatory at all, but be willing to co-operate with them or oppose them according as they seem likely to conduce to, or prevent, that all round completeness of moral character which Herbart regarded as the only satisfactory goal of educational effort. Some, perhaps many, of the unfolding impulses of childhood it would be folly to encourage; they are functional vestiges of a past that took wrong lines of evolution; others, on the contrary, represent wholesome development.

Into which class falls the impulse to "Nature Study"? Into the second, undoubtedly. There is every reason why the teacher should encourage the child's spontaneous interest in "Nature"; such an interest provides a firm basis of *Anschauung* for higher and later operations, familiarises the child with its environment, is a moral preservative, and stands along the direct line of human evolution. Man was once a denizen of the forest, and his mind still reverberates to the echoes of that vanished arboreal life. His present-day love of the sea—prominent in childhood—is probably an echo of a still more remote past, when the animal ancestors of man were aquatic or amphibian. Here comes in the significance of Wordsworth's "Ode." We may not agree with him that each soul pre-existed in a spiritual world before its incarnation at birth, but modern evolution can still see a profound degree of truth in the lines—

In a season of calm weather
Though inland far we be,
Our souls have sight of that immortal sea"

—the sea of evolution and development—

" That brought us hither,
Can in a moment travel thither
And see the children sport upon the shore
And hear the mighty waters rolling evermore."

The vague glories of childhood are faint reminiscences of the infancy of the world. Every one of us that has passed from childhood to maturity has recapitulated within a few years millions of years of racial development. Looked at in this new way, there is an infinitely greater sacredness in the child's unfolding impulses than Rousseau ever imagined.

But all such impulses, I repeat, must not be *too* sacred for criticism. They may "in some covert or concealed way, acting beneath the subliminal range of consciousness, aid in the development of useful activities" or they may be "merely a dead and useless weight continually serving as a drag to civilisation."* To which group does each belong?

But the field of research here revealed is too illimitable for those of us who have grown myopic in poring over the modern school-management book. The ages of the past, like the unborn ages to Gray's Bard, may crowd on the soul too fast.

* I , , 359.

APPENDIX II.



SUPPLEMENTARY NOTES.

- P. 7.—The reference is to professor Rein, of Jena.
- P. 8.—I note that for the Certificate Examination, 1906, the Arnolds and Spencer are also prescribed *as alternatives* to each other. Now the Arnolds and Spencer stand at opposite educational poles; thus the teachers who select one alternative will be imbibing exactly opposite principles to those imbibed by teachers who select the other. The thing is an interesting comment upon the quotations on pp. 7-8.
- P. 9.—I could add substantially to this list of antinomies. Thring and Dr. Laurie claim (and, I believe, claim rightly) that corporal punishment, though useful as a means of preserving external discipline, is useless for eradicating "moral" evil; almost all the education committees regard it as to be used "mainly for moral offences." Educational specialists claim that when given at all, such punishment should be, as a rule private; the Bristol School Board prescribed that it should be given in the presence of the whole class or school. And so on.
- P. 22.—The Keilhau Institute still exists, but as a school for backward boys.
- P. 26.—From *Expostulation and Reply*.

P. 28.—Professor James's view might be better expressed thus:
 "Nature reveals her spiritual intent better in the higher than in the lower types of existence."

P. 32.—We might perhaps distinguish *three* types of "Nature Worship": (1) Admiration of scenery; (2) The discovery of supposed parallels between human life and sub-human life (*cf.* Fröbel's plant analogy), and the attempt to deduce lessons uncritically from these analogies; (3) Genuine Child Study—the study of *Child* "Nature"—this may be aided by sub-human analogies, but must not be dominated by them.

P. 43.—Mr. G. Bedford, as an art teacher, points out that while measurement is useful in art for testing purposes, it should not be used for constructive purposes, otherwise an eye for form will never be acquired. Memory drawing, I may add, is daily receiving increased attention.

P. 54.—In this connection I may quote Disraeli's words: "The duty of education is to give ideas." There is a receptive side to education.

I know the criticism that is likely to be awakened by the distinction here drawn between the receptive and the expressional. Critics will say that there is no rigid distinction at all. In point of fact, though all assimilation involves activity, the distinction is really a fairly well marked one, and is recognised by all educationalists with heads on their shoulders (Herbart, Thring, Bowen, Laurie). But there is no need for me to waste further powder and shot here in proving what ought to be obvious to all, but is *not* obvious to most of our pseudo "reformers." My own experience in the most educationally backward part of England goes to convince me that the chief need in that district is for a richer, more nutritive mental diet; a greater repast of ideas; a

greater stress on the receptive side of education. . Without this we may whistle till doomsday before we shall find boys and men "thinking for themselves." Let them first of all have *something to think about*. The springs of apperceptive interest have pretty well dried up in Devon, owing to the joint employment of child labour in schools, and a formal, non-nutritive curriculum. My *Secret of Herbart* deals expressly with this point.

Pp. 63, 77.—*The Identity of "Word" and "Thing" for the Child*. "In the minds of children and savages, the word and the thing are absolutely identified. . . . One of the topics discussed with a brave, bold, golden-locked boy, under three years old, was thus broached and disposed of: 'Are Mabel and Trixey coming to-day?' 'I'm sure I don't know. Who *are* Mabel and Trixey?' Thereat he took up a strong and confidential attitude 'They *are* Mabel and Trixey; that's their names.'"—Quoted in Cunnington's *Story of Arithmetic*, p. 38.



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